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Third Annual Convention

VOCATIONAL EDUCATION
ASSOCIATION
of the
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JANUARY 18, 19 and 20, 1917
AUDITORIUM HOTEL
Chicago

ARTICLE II

Objects

The objects of this Association shall be to study problems relating to vocational education and to bring the results of this study to public attention for the purpose of fostering types of education that will meet the vocational needs of youth and the reasonable demands of industry for efficient workers while preserving those elements of general education necessary for good citizenship in a democracy.

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Matthem Woll, President International Photo-Engraver's Union, Chicago
Edward F. Worst, Supervisor of Elementary Manual Training, Chicago

THURSDAY MORNING, January 18th

10 o'clock

Registration

Visiting Schools and places of interest

THURSDAY AFTERNOON, January 18th

2 o'clock

BANQUET HALL—Auditorium Hotel

INDUSTRIAL PREPAREDNESS

Opening of Convention by President George H. Miller

CHAIRMAN—William M. Roberts, Superintendent in Charge
of Vocational Schools, Chicago

1 The Significance of the Smith-Hughes Bill

Alvin Dodd, Secretary National Society for the Promotion
of Industrial Education

2 Some Needed Developments in Vocational Education

Wm. T. Bawden, Specialist in Industrial Education U. S. De-
partment of Education

**3 Elementary Education as the Basis of Industrial Effi-
ciency**

Frederick W. Roman, Professor of Economics, Syracuse
University

4 Is Vocational Education a Menace to Democracy?

Dr. David Snedden, Professor of Vocational Education,
Teachers College, Columbia University

Discussion led by

Wm. B. Owen, Principal Chicago Normal College

THURSDAY EVENING, January 18th

8 o'clock

BANQUET HALL—Auditorium Hotel

WORK FOR WOMEN

CHAIRMAN—Mrs. Harlan W. Cooley, President Chicago Women's Club

1 Training Girls for Wage-Earning Occupations

Florence M. Marshall, Principal Manhattan School of Trades for Girls

2 Efficiency in the Home

Abbey Marlatt, Professor Household Economics, University of Wisconsin

3 The Double Problem of Vocational Education for Women

Dr. David Snedden, Professor of Vocational Education, Teachers' College, Columbia University

Discussion led by

Miss Isabelle Bevier, Head Home Economics Department, University of Illinois

Marriet Vittum, Director Northwestern University Settlement

FRIDAY MORNING, January 19th

10 o'clock

AGRICULTURAL EDUCATION

BANQUET HALL—Auditorium Hotel

CHAIRMAN—Edward T. Tobin, Superintendent of Schools of Cook County

1 First Steps in Agricultural Education

Bert Ball, Secretary Crop Improvement Committee Council of Grain Exchanges

2 To what Extent Can the Schools Provide Agricultural Education?

Matthew P. Adams, Director Mooseheart Vocational Institute, Mooseheart, Illinois

3 Co-operative Extension Work in Agricultural Education

Eben Mumford, State Leader, County Agent Work, Michigan Agriculture College, East Lansing, Michigan

4 The Farm Paper as a Factor in the Education of the Farmer

Frank B. White, Managing Director Agricultural Publishers Association

Discussion led by

Edwin Tobin, Superintendent Schools, Cook County, Illinois

FRIDAY AFTERNOON, January 19th

2 o'clock

BANQUET HALL—Auditorium Hotel

**VOCATIONAL EDUCATION
FROM THE STANDPOINT OF ORGANIZED LABOR**

CHAIRMAN—F. C. W. Parker, Vocational Secretary, Y. M. C. A.

1 Organized Labor's Position on Vocational Education

Matthew Woll, Chairman Committee on Education of the
Illinois State Federation of Labor

2 Trade Agreements

Charles A. Prosser, Director Dunwoody Institute, Minneapolis

Discussion led by

P. R. Bell, Delegate Fort Wayne Federation of Labor, Fort
Wayne, Indiana

FRIDAY EVENING, January 19th

6:30 o'clock

BANQUET HALL—Auditorium Hotel

BANQUET

Greeting:

George H. Miller, President Vocational Education Association of the Middle West

TOASTMASTER—William J. Bogan, Principal Lane Technical School

1 Address of Welcome

John D. Shoop, Superintendent of Schools, Chicago

2 Principles that Should Govern in the Framing of Vocational Education Laws

Charles A. Prosser, Director Dunwoody Institute, Minneapolis

3 Women in Industry

Abbey Marlatt, Professor Household Economics, University of Wisconsin

4 Legislation

David Shanahan, Speaker House of Representatives, Illinois

SATURDAY MORNING, January 20th

9:30 o'clock

BANQUET HALL—Auditorium Hotel

**PRINCIPLES OF AGRICULTURAL AND INDUSTRIAL
LEGISLATION**

CHAIRMAN—Albert G. Bauersfeld, Secretary Vocational Education
Association of the Middle West

- 1 The Place of Industrial Education in the High School
Fred D. Crawshaw, Professor of Manual Arts, University of
Wisconsin
- 2 Lesons From the Experience of Indiana
John A. Lapp, Director Bureau of Legislative Information,
Indiana
- 3 The Outlook for Vocational Education Legislation in
Illinois
 - (a) David Shanahan, Speaker House of Representatives
 - (b) Francis P. Blair, Superintendent of Public Instruction,
Illinois
- 4 The Relation of Boys' and Girls' Club Work to Voca-
tional Education
O. H. Benson, in charge Boys' and Girls' Club Work, U. S.
Department of Agriculture

Discussion led by

S. J. Vaughn, Head, Department Manual Arts, Northern Illin-
ois State Normal School, DeKalb

SATURDAY AFTERNOON, January 20th

2 o'clock

BANQUET HALL—Auditorium Hotel

**HOW MAY EFFICIENCY IN
VOCATIONAL EDUCATION BE OBTAINED**

CHAIRMAN—George H. Miller, President Vocational Education
Association of the Middle West

1 Commercial Education

L. C. Marshall, Dean College of Commerce and Administration,
University of Chicago

2 Training Teachers for Vocational Schools

L. D. Harvey, President Stout Institute, Menomonie, Wis.

3 Farm Life as Education

Herbert Quick, Federal Farm Loan Bureau, Washington

**4 How Can Vocational Efficiency be Obtained in the
Public Schools**

Wm. C. Bagley, Director School of Education, University of
Illinois

Discussion led by

Wm. Hedges, Principal Jackson School, Chicago
Business Meeting

THE SIGNIFICANCE OF THE SMITH-HUGHES BILL

DR. DAVID SNEDDEN

Professor of Vocational Education, Teachers' College
Columbia University

Mr. Chairman, Ladies and Gentlemen: It is unfortunate that Mr. Dodd is not here. I have tried to keep myself informed somewhat as to the progress of the Smith-Hughes Bill, and last Saturday I sat with the Executive Committee of the National Society when we were reviewing its provisions. At the same time, I haven't any printed material in my hands. There are a number of detailed points about which I fear I am not certainly informed, and all in all, I am sorry that Mr. Dodd is not here, nevertheless I will try, in the course of a few minutes, to state the situation.

Of course, you know that the movement for some form of national aid for vocational education dates back now a good many years, and in the meantime, matters have been thrashed over pretty well before both houses of Congress. Last August, the Senate passed what is known as the Smith Bill without, I believe, a dissenting vote. The President, in a recent message, in a very specific way urged its passage by the House. A week ago last Tuesday the House, after giving the bill four or five hours of very exhaustive discussion, passed it unanimously, and now it goes into conference, because there are differences between the Smith Bill of the Senate and the Hughes Bill of the House, in most respects, difference of detail only, but the conferences, I believe, are now being held and Mr. Dodd told me last Saturday that it was almost certain that conferences would be held this week at which it would be necessary for him to be present.

Now of course, the broad provisions of the bill I think you know. It carries with it an appropriation of upwards of a million dollars at first, rising then by steps for a few years until the total of, I think, seven million, two hundred thousand dollars is reached, to be distributed among the states on certain bases that are named in the bill. The money is to be used to aid three forms of vocational education: industrial education, agricultural education below the college grade, and homemaking or home economics of vocational grades. Also, a certain amount of the money at first, a very considerable proportion, must be used to aid in the training of teachers for these lines—special teachers.

The money is not available for any state except by way of reimbursement; reimbursement of expenditures incurred by the state itself or by local sub-divisions thereof for the support of vocational schools, to be approved by the national authority. The state is required to constitute or to designate an authority as a state authority with whom the Washington authorities can deal, and this state authority must have at least three members. It can be an ex officio board or a board ad hoc, the large responsibilities for the specific form being left to the state.

The Senate bill has left out provision for home economics training, the House bill includes that. Everybody believes that in this conference, differences will be adjusted, so that the vocational form of home economics will stand on the same footing as the other forms of vocational education. Of course, Congressmen were doubtless in confusion on two points here. In the first place, it has never been the intention that the national aid should be used to promote forms of education that the communities themselves had historically accepted as their responsibility. It is to assist new forms of education. Therefore, commercial education, for instance, which is or can be made vocational, is not assisted by this bill. Home economics has been a matter of some doubt. There are practically no schools in the country, I believe, offering home economics with exclusively vocational purpose. There are many schools, in fact, they number thousands now, where home economics is included as a part of a program of general education. There are some schools which are intermediate between these types, but I think the latest word from those who are responsible for this bill before Congress is to the effect that the home economics will be put on a parity with the other subjects, agriculture and industries, and then the matter left to the administrative body to adjust.

At present, the chief difficulty to be encountered in the conference is as to what is called the control, the kind of board that at Washington shall supervise on behalf of the government the expenditure of this money, because supervision there must be from the national end if national funds are to be appropriated. The Senate Bill provides practically for a board composed of cabinet members with the commissioner of education a kind of executive of the cabinet members, I think, and then under that group, who are all in a sense ex officio, employed executives or specialists to take direct charge of the work. The House bill provides for an appointive board of laymen, appointed by the President. I am informed that the President does not desire to have a complete lay board, that he feels that a complete lay board, while they are ethically the soundest form of government or executive body, has

this disadvantage from the standpoint of present administration at Washington, that a lay board gets to be quite independent of the administration's influence, but that nevertheless the administration has to take full responsibility for its misdeeds or for whatever it does that brings discredit; and that is, from the standpoint of a sound administration, objectionable, I am told. So the President wishes a board so constituted that his powers over it can at least extend as far as responsibility for its actions.

At the last meeting of the Executive Committee of the National Society there was a good deal of discussion of a sort of a compromise control that it is believed would appeal to all parties, and I believe that is what is going to be laid before the conference. That is, for instance, there might be on this board, we will say—I won't attempt to give the details now, because they are not clear in my mind, but there would be on this board two or three cabinet members.

If the board was composed of seven members, the idea would be this, that three of those members would be cabinet members of the Departments of Commerce, Labor and Industry. A fourth should be the commissioner of education, who, of course, represents the Department of the Interior. Then in addition to these four there would be three members appointed by the President. You see, that would provide a majority subject to the control of the President, because, of course, the control of the President over his cabinet or appointees of his cabinet, like the commissioner of education, is theoretically absolute. It would also provide three additional members, a minority, by means of which the great interests most immediately affected by this bill, perhaps, on one side, namely, commerce, industry and labor, could be represented.

That compromise proposal will be before this conference for discussion. I personally have not been very much interested in the particular form of control at this time, because I feel very sure that with the widespread interest in this subject and the kind of men who are undoubtedly going to be appointed or would be appointed normally to the executive positions, there would be very little difficulty in securing a very effective, efficient carrying out of the provisions of the Smith-Hughes Bill.

I don't know that I have anything to add at this point. I think perhaps some of you will have questions to ask and perhaps some of them I can answer and probably Mr. Bawden can answer some of them. Perhaps some of them can be answered by yourselves. The measure is looked upon as not so much a national aid measure as a national stimulus measure. At least the amount of seven million two hundred

thousand dollars, when distributed among all states, is not large; of that, four hundred seventeen thousand, on the basis of the ratios now established, will come to Illinois. That four hundred seventeen thousand dollars made available to assist or to add to funds appropriated by local communities and the state for the promotion of vocational education would, after all, be a very considerable sum, but some of us believe that the future of vocational education is so large that when communities appreciate what it all means, an appropriation of four hundred seventeen thousand dollars for the state of Illinois, would not be a very large quota.

But after all, the future will take care of itself in that respect if the national government is convinced that an investment of this sort is profitable for the country as a whole. If, as the President says, it proves to be a part of a program of genuine preparedness, and for my part I can see no other way to interpret it, the capacity and doubtless the disposition of the national government to add more will manifest itself.

I am not sure that this subject at the present moment demands further consideration. I mean that I could take up a good deal more time talking on this and not add much to what I have said, but if there are questions that you want to ask, I believe that I can answer a good many of them out of the little experience that I have had. Mr. Chairman, I think that is all I can say now.

THE CHAIRMAN: Dr. Snedden has stated that you are at liberty to ask him questions if there are any points regarding this bill that are not clear in your mind. We will devote a little time to that at this time. Does any one have any question to ask Dr. Snedden? I believe Dr. Snedden stated, did he not, that the national government, through the state, would reimburse a local community for what it had expended for this particular purpose to the extent of an equal amount?

DR. SNEDDEN: I think that is the general intent.

THE CHAIRMAN: Just for the payment of salaries of teachers and for the training of teachers?

DR. SNEDDEN: Yes. The national aid is granted for the training of teachers and as a contribution towards the salaries of teachers. It is not a contribution towards equipment or other expenditures. That, of course, is probably to arrive at an easy and simple administrative basis as much as anything else.

SOME NEEDED DEVELOPMENTS IN VOCATIONAL EDUCATION

WILLIAM T. BAWDEN

Specialist in Industrial Education,
U. S. Bureau of Education, Washington, D. C.

A bill providing Federal aid to the states for the stimulation of vocational education passed the Senate on July 31, 1916. A similar bill was before the House of Representatives for consideration on several occasions, and was passed January 9, 1917.

APPROVAL OF THE OBJECTS OF THE BILL

The first general impression gained during the progress of the debate was that of general approval of the objects and purposes of the proposed legislation. The bill was characterized by one member as the most important before the Sixty-fourth Congress, and referred to by another as the most meritorious piece of legislation considered in recent years. Similar sentiments were voiced repeatedly during the discussion. One member in the course of his remarks said:

"After being called upon at the last session of this Congress to vote for more than \$843,000,000 to sustain the military arm of the Government, including pensions for service in past wars, and since observing the invitation contained in the estimates now submitted, to vote for more than \$892,000,000 for military purposes, amounting together to more than \$1,735, 000,000 in the two sessions of the Sixty-fourth Congress, it is with a feeling of genuine pleasure and a delightful relief to be given the opportunity today to vote for an appropriation like this without associating with its expenditure the contemplation of bloodshed, misery, and death."

In reply to direct questions, it was emphasized several times during the discussion, with evident signs of approval, that the beneficiaries of the proposed legislation are not to be the colleges and universities, and the favored youth who have the means and the opportunity to resort to these institutions; but rather the great army of boys and girls who have in the past been obliged to enter upon the responsibilities of life without intelligent guidance and with inadequate training. Expressions of solicitude for the interests of these boys and girls, and

of the desire that something worth while may be done to equalize educational opportunities and to provide schools that will minister to the practical needs of the people, repeatedly drew applause from both sides of the House.

There can be no question, therefore, that the proposals for legislation in aid of vocational education were considered in a very friendly and favorable atmosphere.

1. DOUBTS AS TO EFFICACY OF PLANS PROPOSED

The second point of view manifest in the discussions was that of frankly expressed doubt as to the extent to which the proposed legislation will attain these admittedly desirable ends and accomplish the results promised by its supporters.

2. CO-ORDINATION WITH CHILD LABOR LEGISLATION

Of equal importance, perhaps, is the question of the relation between educational legislation and child labor legislation. For years we have been witnessing the achievements of an active propaganda for child labor legislation, more or less dissociated from any corresponding movement for educational legislation. The sponsors for the former admit the need of the latter, but contend that they are able to accomplish more by concentrating their efforts on a single objective. They hold; further, that when they took the field there was already in existence a great and powerful public school system, with skilled leaders amply able to look after educational interests, whereas there was no agency organized to look after the interests of boys and girls who had left school and who found themselves helpless in the struggle against the working conditions that prevailed in stores, mills, and factories.

Whether we attempt to place the responsibility or not, we can not justify our neglect of the fact that a hiatus exists between the close of the period of compulsory schooling and the beginning of the period when young persons are permitted by law to work for wages. The dangers both to society and to the youth are obvious, and need not be elaborated on this occasion.

It is of doubtful utility, to say the least, to develop an elaborate and costly system of vocational schools, designed especially to minister to the needs of boys and girls hitherto neglected, without adopting measures to bring these pupils into the schools in order that their needs may be studied. It is during the two or three years immediately preceding the entrance into vocational life that the school might be of the greatest help to young people, and if our laws are permitted to operate in such a way as to free boys and girls from the control of the school

during these years the vocational school will fail of rendering its maximum service.

The development of vocational courses will doubtless serve to make school work more attractive, and may be expected to hold pupils in school who now tend to leave at the earliest opportunity. This should not be made the excuse for perpetuating a condition that is indefensible from every point of view.

It is customary to regard the completion of the eight years of the elementary school, at about fourteen or fifteen years of age, as the minimum amount of schooling that should be secured by every child. Whenever this or any other amount of schooling is specified in the law of any state it is designated as the minimum. Nevertheless, many parents, with their children, look upon the minimum provided by law as the maximum of attainment toward which they strive, and with which they purpose to content themselves. And it is a matter of common knowledge that a very considerable proportion of boys and girls in all the states do not receive even approximately these minimum amounts of education.

One valid objection to raising the age limit of compulsory schooling has been the inability or unwillingness of the schools to organize classes that would appeal to the types of pupils who have left school as soon as the law permits. It has been held to be useless to attempt to force boys and girls back into the schools as they now exist in the face of demonstrated inherent lack of holding power of these schools over certain types of adolescent youth. This objection should be effectually removed by the organization and perfection of the vocational school, while, at the same time, the raising of the age limit will give the vocational school a firmer hold on its pupils and a more assured place in the school system.

One very important development needed, therefore, in order to make vocational education fulfill its function is to co-ordinate educational legislation, and especially legislation for compulsory schooling and legislation affecting vocational education, with child labor legislation.

3. INDUSTRY'S CONTRIBUTION

A third much needed development is a determination of the contribution that industry, using the term in the broadest sense, can and will make to the solution of the problems of vocational education. As vocational surveys multiply it will become increasingly easy to show the existence of the needs on the part of groups of workers, of various types of knowledge and skill. It must not be assumed, however, that

such a demonstration is all that is necessary to establish the duty and responsibility of the school.

4. NEW LEGISLATION

There are indications that during the current year there will be more legislation enacted dealing with vocational education than has been the case in any single year heretofore. The legislatures of forty or more states are in session this year, and doubtless in all of them efforts will be made to secure whatever action may be necessary to enable the states to comply with the terms and provisions of Federal law. In some states this minimum of legislation is all that will be attempted at present; in some states, perhaps, commissions will be appointed to investigate and bring in recommendations for future legislation; a few states, possibly, may inaugurate at once definite programs for vocational education based upon study of local needs and available knowledge of what has been accomplished elsewhere.

5. PREVOCATIONAL EDUCATION

Still another greatly needed development is in the field that has been called prevocational education. The term "prevocational" has annoyed many persons, and some have spent so much time and energy criticizing the term and explaining why it ought not to be used, that they have neglected to note the valuable features of the work for which it stands.

The chief objection to the term prevocational could be removed by giving to the work the breadth of content suggested by the term itself. The prefix "pre" implies a special kind of training that preceded vocational training, and hence is not itself vocational. It is designed for the young person who has not yet made a choice of vocation, or a choice among several opportunities for vocational education that are offered, and who is presumed to receive therefrom definite assistance in the making of such choices. The latter part of the term—"vocational"—implies a much greater variety of activities, and a much broader outlook into possible future careers, than is included in a program that might more legitimately be called "preindustrial," or "precommercial," or some other one of the terms less comprehensive than "prevocational."

In order to be entitled properly to the use of the term, therefore, a program for prevocational education should embrace a variety of activities sufficient to include some representation of each of the important groups of possible vocations, from among which it is assumed that a choice is to be made, and to include something corresponding to the introductory phases of each of the main subdivisions of vocational

education (professional, agricultural, commercial, industrial, and homemaking), the opportunity to enter upon a course in some one of which presumably will be open as soon as a definite choice can be made.

The importance of further work in this field is indicated by reflecting upon the increase in the efficiency of the vocational school that would follow from limiting its efforts to those who come having made rational and fairly definite choices of future careers, based upon such trying-out as might be afforded in a broadly-conceived prevocational school. It is the common experience of the vocational school—whether the trade school, the business college, the normal school, or the divinity school—to find that many candidates apply for admission whose determination to prepare for and to pursue a given vocation is based upon factitious or adventitious considerations, rather than upon an ascertained or demonstrated fitness for success in the chosen calling. In the aggregate a vast amount of time and energy, and vast sums of money, have been expended in attempts to prepare persons for occupations in which they can not be successful or contented. It seems reasonable to suppose that a considerable portion of this expenditure might be saved to the individual, to the institutions, and to society, by a well-organized plan for assisting young persons to “find themselves.”

6. TYPES OF PUPIL

Finally, there is need of development of more effective means for dealing with certain types of pupils to whom the vocational school is assumed to be able to make a special appeal. Not all boys and girls who enter the vocational school will achieve brilliant success therein. Perhaps the proportion of successes will be no greater than it is in the traditional school. In any event, there will be the temptation to turn many away because they do not give promise of accomplishing all that enthusiastic teachers and ambitious principals desire.

The traditional school has been charged with attempting to solve some of its problems by weeding out those pupils who appear to be unable to do the work prescribed, and discouraging the attendance of those who, because of marked individuality, find it difficult to adapt themselves to the formality and rigidity of regimental procedure. There are indications here and there that the vocational school is not always able to resist the tendency to dispose of some of its difficulties in this way. “Out of sight, out of mind” may apply to the school teacher as well as to another, and too often the teacher has been able to forget a troublesome pupil who simply disappears.

The great wave of popular demand for vocational education has been due in part to a recognition of the fact that, for whatever reasons,

there are large groups of young persons who are not served by the existing public schools, and to the belief that somehow these young people will be reached and served by the proposed program of vocational education.

It is an enormous task, for the boys and girls whose education has been neglected hitherto are of many types. And yet it seems inevitable that vocational education will be judged by the success with which it adapts its program to these varying needs.

ELEMENTARY EDUCATION AS THE BASIS OF INDUSTRIAL EFFICIENCY

FREDERICK W. ROMAN

Professor of Economics, Syracuse University, New York

When we speak of elementary education as a basis for efficiency, we must understand that we are talking about some kind of a school system that will enable the children to carry on the struggle for existence successfully. Now, the problems with which the children of the country are confronted from age to age, from decade to decade, differ. They shift, and for that reason the things that we teach in our schools constantly change in order to give the students at every moment the highest possible efficiency.

There have been those in recent times in educational work who have been so concerned with the production of goods, with the making of things, with the technical side of education, that they have felt that the main thing to be done in the schoolroom, elementary and high school, was to so organize its curriculum and management that it would become a very efficient machine in producing things.

Well, that is good. We need to produce things. Despite the fact that this is the richest country in the world and despite the fact that we are a very wealthy nation, there is still a great deal of inefficiency in production, and no one would quarrel for a moment with any plan whereby the efficiency in producing things is encouraged and increased. That must ever be a part of the school system, and the elementary school children must be trained with that attitude of mind that will make them earnest and zealous to be really useful in actually producing real things.

So much for that proposition. We do not disparage the production of things, and our schools must put more goods and more power into the work in order to still produce more goods in a shorter time, to give us more products at a minimum expenditure of effort. However, when we look over the vast thousands and millions of our school children in the United States, and ask ourselves this question, What problems have these children to face in the public schools; what are the things that they have to meet? Is it the question of producing more meat and more bread, more food and more clothing in this country? Not necessarily. The truth is, you admit, we are already rich. The truth is that it is the question of distributing the wealth which we already

have, and that primarily confronts the American people at the present time.

The problem of production was the paramount issue in times past, because the nations were starving. The people did not have very much food or clothing and it was necessary to know, What can we do to produce goods? When the industrial schools were started a hundred years ago in Wurtemberg and in Saxony and those German countries, they started because the people were in famine. That was the origin of those schools, and the people who studied the question of education in those days said, What can we do to make the boys and girls more efficient in order to enable them to produce things? and for that reason in those days it was the question of teaching the children how to become producers.

At the present time the problem has shifted. I am in no way disparaging the question of production, but the paramount issue of today is the distribution of goods, is to help the children to make it easy to a fair position, a just position towards the owners of property, and to take a due responsibility as to their rights and also as to their duties and obligations in these matters, because we must teach the children obligations in these matters, because we must teach the children rights, and not rights only, but we must also teach them duties.

Now, we have certain people who are constantly agitating and trying to get more rights. It is rights, rights, rights, and mention is never made of duties.

My point is then, if we are really to take up seriously this question of elementary education as the basis of efficiency, we must deal primarily with the question of teaching the children along the lines of collective action, in order that these difficulties and this great battle which is becoming more intense from day to day, this battle between labor and capital, may be solved without an industrial war. That is the whole proposition.

The forces of capital and labor are getting ready for a great battle. Now, in some places, instead of seeking the solution and instead of going into the schools and actually teaching the children how these questions may be solved, I find that in certain states they establish the state constabulary, New York State at the present time, is an excellent illustration.

And what is the state constabulary? Ladies and gentlemen, it is nothing more or less than an industrial army in order to control the strikers. That is all. When you ask these people, "Why do you want an industrial army to settle the problems between capital and labor?" they say, "The militia will no longer suffice." They symphasized with

the laborers, and the danger of mutiny is so great that the militia will no longer suffice to settle the difficulties between labor and capital, and for that reason, we need a special organization under the control of the governor so that these men may be controlled and sent from town to town, just as soon as a strike breaks out.

In other words, instead of going to the schoolrooms to teach the masses of the children an attitude of mind that will lead to justice, we still have those who say, "Let's settle it by force." Force never settled anything. Instead of meeting the difficulty and teaching the people so that they may reach a proper adjustment of these matters, they expend their fortunes in making more powerful the engines of warfare.

What will be the result of an industrial army to settle peace? It won't settle peace. The only point is, labor will still become more bitter and more powerful and the time will come when you will have a strike of still more enormous proportions and this industrial army will still be unconquered. In other words, we are on the wrong track. Force never brought peace. We can not, then, be content to settle the difficulties between labor and capital by devoting the time of the public schools to the mere production of goods. We must remember that this is the richest country in the world at the present time and that these difficulties have been arising. Now, if we expect to settle these difficulties, it will be necessary that we expend a certain amount of time in all the grades, teaching the pupils citizenship, patriotism, and their responsibility towards the nation and towards life. It will be something more than simply teaching them to read and to write. However, even that is necessary.

We can go back to Germany and we find that in the earlier days when Germany started out to become efficient, one of the very first things that they learned, especially in Prussia, was that the boys and girls must be taught better writing, better reading, better arithmetic.

Now, that dispels the whole idea as has been thought by some in this country, that this whole question of efficiency and industrial preparedness and all the rest of it could be taken charge of by an organization quite separate from the public school system. They think that we can make great things out of these boys who have never been in the grades and who have been wandering around on the streets. The truth is, the experience of Germany proves just the opposite, German schools and the records show that in order to make these boys and girls efficient, it was necessary to give them real, definite training, so that the question of industrial preparedness and efficiency in the industrial schools is simply one continuation of the learning process.

So much for that side of the proposition. Now, let us consider it

from the standpoint of the spirit which we expect to put into the schools at the present time. You know this question of getting ready for real efficiency depends not only upon adopting new ideas, but also upon our power of rejecting a lot of fads and notions that we are expected to adopt from year to year and decade to decade.

Now, everybody wants industrial efficiency; and we were told just yesterday that all difficulties should be settled by discussion, by justice, and I am astonished to find the large number of teachers who are changing their whole line of tactics. Why, teachers, a lot of you, told me yesterday that whenever you had any trouble on the playground in the management of the children, whenever the boys got into a little fight of some kind or other, you told me over and over again that the thing you did was to call the boys in and discuss this matter and that you settled this question by justice, that you talked it over; and then you told me that you had a great point to prepare that boy for life. You remember how you used to tell me about it. You said that now this was a sample, that this way of discussing this thing in the public schools and settling it here, was the model that he should take with him in after life, that that was the way that big men did, that nations did, and that that was the great goal, that all difficulties were to be settled by justice, that the armament of justice was to lead to the highest points of efficiency.

Now, some of you tell me that the armament of the world is to lead to justice. I wonder why this turn? Why have you changed your base? Why did you argue one thing yesterday and argue a different thing today? What things have happened in the world to make you throw away the idealism of yesterday and get ready to accept the brutality of tomorrow? These are the things that I want to know. I want to know, futhermore, if you haven't told me over and over again that you have regarded as the greatest thing in American life the power of initiative. You told me over and over again, and haven't we learned from our books that the American people have invented more things than has been the case of any other nation, that the inventive power of American people, because of its initiative, has been the greatest birthright of the American people?

Now, some of you are telling me that the thing you want to do is to fasten a new system on our schoolroom for the sake of getting efficiency, namely, military training. I find that in some cities in this country they are talking about putting military training in all the grades. Some are putting it in the high schools, some are putting it partially in the high schools. In fact, the whole country is simply wild over this new doctrine.

Let us analyze it. I point you again, ladies and gentlemen, to Germany. We know Germany's efficiency. We have studied and analyzed that before, many and many a time. In fact, I have been so great a champion of it that in Syracuse and in New York they have sometimes accused me of being paid by the German government to talk for the German schools and school system. I would hate to see my country adopt the vices of Germany without her virtues. This is the thing that is frightening me at the present time.

And what do I mean? You know about the American initiative, do you not? You know that we have invented more things than any other nation in the world. There is something about the American—he can do things. You know that Germany hasn't got it, don't you? You know that when you employ a German workman, you get a very efficient man. He is efficient. He can do anything that he has been taught to do, well, and thoroughly; but everybody who has visited the German schools tells us that there is a military air in the German school system. Everything is standardized and initiative is not high. Everybody gets things from above, but when it comes to real leadership, the American holds the record. You admit that America holds the records because Americans have initiative.

I am going to ask you, are you going to be instrumental in fastening a system on the United States that will standardize and that will destroy initiative? Do you know that military training does not encourage initiative? You go into a German school and everything is done just alike, and I hold that that philosophy is an incorrect philosophy, because it inhibits independent thinking, it inhibits freedom, and eventually the masses who are trained under such a system will accept what the leaders tell them and if the leaders are not right, they may be led into a tremendous world destruction and do themselves great injustice and actually do the world a great deal of wrong, because independent thinking is gone. That is what I want to know—do you want that?

And as a matter of fact, if I may say it here, because it is pretty hard to talk about these subjects without showing your hand, I hold that that is the very thing that has taken place in Germany. She has secured an industrial efficiency at a price that is too great to pay. Yes, there is such a thing as an efficiency that is too costly. There are certain things that are simply too great in price to pay for a certain type of efficiency. When you get your efficiency so standardized that it strikes initiative, that it strikes freedom of thinking and independence of action, you have already paid a price that is too great for your efficiency. That is the proposition that I maintain.

I oppose some of these new fads for a second reason. Now notice this thing that we are supposed to add to our schoolrooms at the present time in order to get this efficiency. People tell us, "Let's have a lot of this military training in the schools and high schools, because it will make us so efficient." Will it? What will it really do? It teaches the pupils that things are to be settled by force, and yesterday we taught the pupils that things were to be settled by justice, by reason. Now you know this is true, that whenever you get some of that system of force for settling things, those who advocate it are never satisfied. As soon as they get some of it, they want more. They never were satisfied even in Germany. I was over there for several years, and altho I think that most of the people outside of Germany now feel that Germany had too much military training for her own good and for the good of the world, yet those who were backing the military training never thought they had enough. I fear it is going to lead to the destruction of a very wonderful civilization.

Let us analyze. You start putting in a system for the sake of getting efficiency, and that system is backed up by force. Those people say, "Now let's have some of this training for one year. Let's have it for two years. Let's have it in all the high schools. Let's have it in the grades." Then some people will always object to it. There will be some who say, "I don't like this idea of running things by force. Why should we have it?" Oh, you know what the answer will be. They say that we have enemies, and we must prepare for enemies.

My second powerful objection—notice the first one: it strikes initiative, then it cuts our freedom—my second point is that the whole system puts us under the everlasting obligation of imagining that we have enemies. That is the point. I wonder if I make that clear? I say to you that if we once start with that system, we will always have to be defending it and there will always be those who want more and those who don't want it, and the answer will be that we have enemies, and we will imagine enemies. We will imagine that Japan is after us. We will imagine that England is after us. We will imagine that Germany is after us.

I want to tell you that is just what Germany did in order to get that system more firmly established. I was over there; I have been in the German schools many and many a time when they were teaching courses in telegraphy and other subjects and the discussion would come up over and over again, "Why do you do this?" and the answer would be, "Why, when we get into a war with England, we will cut the cables, and so on." That was in 1909. Now they want still more of it.

And why do they want it here? Because we are getting ready for

war. Do I make this point clear, that when you start with that sort of a doctrine, you put the nation in the position where it will have to actually create nation-hatred in order to justify the system, and when you ask them what is the reason for this, they say, "Well, I guess we have got some enemy." "What enemy?" "Well, I don't know. I think we had better get ready for Japan or England or Germany."

Now I find a great many getting ready for war with Japan who don't know a single thing about Japan. That is a fact; they don't know a single thing about Japan, but in order to back up a certain sort of system, they find themselves under the necessity of getting enemies. What is the situation about Japan? Japan is just a little larger than California. It has half our people and only one-sixth of the soil of Japan is capable of cultivation of any sort. We have fifty-eight million head of cattle in the United States, whereas Japan has only a little over two million. We have nearly sixty millions of hogs in the United States of many kinds and varieties, and Japan has scarcely any at all. The truth, ladies and gentlemen, is that many people talk about getting ready for war with Japan that have no facts on which to base this thing; and if you start with this system in your schoolroom on the basis of getting industrial efficiency, you will put yourselves under obligations and the nation under obligations to constantly keep imagining that situation.

You see that, that is clear? You prepare this thing for war and you have got to have war. Prepare for peace and you may be able to avert war; and if you prepare for peace and are not able to avert war, you will still be better prepared for war.

A great many people say they want the Swiss system. Now there are two wonderful things about that: the phrase is short and terse and the alliteration is good. It has two good points. I find that it is the alliteration that appeals. Of all the phrases, that Swiss system sounds the best. Otherwise, they don't know that it has any particular qualification, except that it is a phrase that is put just right. It fits the mouth well.

Now, there is a third powerful reason that I have against the introduction of this system for the sake of getting efficiency. You start in with a system of what you call national preparedness. You teach the people then to get into frame of mind that is national. However, what about our commerce? We are preparing this country, and Senate, that is why. In other words, we were at fault. It is our fault that we haven't such a treaty as that with England at the present time.

Now about getting war with other nations. You know there are a

that is right and proper, for all the nations. We are teaching the people of the United States to get ready for commerce with South America. We are teaching them to get ready for commerce with the Orient and with all the world. Now I hold that that is legitimate and proper; that is right. The greatest possible division of labor that we can have is what this country needs. All nations are entitled to that. Now notice: We teach a world-wide expansion, as far as material things are concerned, but on top of this world-wide expansion, (commerce and trade routes that lead to all the nations) we coop up a spirit of mind that is only national.

Will it work? No. Don't you see the point, the inconsistency? Don't you see you are preparing a development of materialism that includes all the world, but on top of that world-wide control of material things, you are cooping up a frame of mind that is national, based on preparing to hate everybody else and getting ready to quarrel with everybody else on the basis of nationalism.

Now I am for patriotism, but I am for an understanding and a clear patriotism, and I am sure that in order to get this real efficiency, it will be quite necessary for us to analyze our own motives at times.

Why, you remember just about six or eight months ago in the last Congress, when the question of war came up with the various nations, some people have said that we must get ready for war with Japan, and I noticed that Congressman Mann of Illinois said that we thought we needed to get ready for war with England. That was his statement in the last Congress, in the previous session. Now why? How is that—get ready for war with England? What are the facts, ladies and gentlemen? Do you remember that in Taft's administration we came very nearly having an arbitration treaty with England whereby all questions were to be settled, even including questions of honor, by arbitration? Taft tried very hard to get that treaty through, and if we had had that treaty we might have been able to avert this world war. Taft wanted a treaty with England whereby all questions with England would be settled forever, even including questions of honor. Eventually in Wilson's administration they passed some kind of an arbitration treaty with England that is not nearly so inclusive as that one was. Why didn't we get that first one with England? Do you wonder why? Not because the English Parliament was against it but that treaty was not ratified because it was opposed by the United States good many people who are advocating this thing of preparedness and they don't stay put long enough so that I can really find out where they are. I remember in last June and July, there were a great many people who talked about preparedness. "Oh," they said, "We have

got to get ready for war." "Oh, coming right now, it it?" "Oh, yes, we are threatened all sorts of ways." And they had a preparedness parade in New York and something like one hundred fifty thousand people marched in it; and since that time the recruiting stations in New York have been able to enlist sixty-six enrollments. There are thousands and thousands of people who are ready for this thing, but they want the other fellow to do it.

In other words, that is the thing that the schoolrooms need to teach. Why, ladies and gentlemen, let's begin to teach patriotism in our schools. I am with you on that proposition. Let's have patriotism. I think the country lacks it. I think it is short on patriotism! We need more of patriotism.

Now there were, then, those who said that we must get ready for war. They said that we are threatened with war. Well, I notice that we had an election on November 7 and about a week before that election, when the slogan was passed all over the country and it said, "He kept us out of war, he kept us out of war," why a lot of these people said, "He kept us out of war? What war? Nobody wanted to fight us." They changed the whole slogan. Let's not forget some of these things now. I want you to stay put, so that you can be in position for attack. That is the idea and if you will do that, I will think a lot of you. I will just think you are fine if you will just stay put and don't get on both sides of the proposition at once.

I have answered the question concerning Japan; I have answered the question concerning England. Some people even said that we had been kept out of war, but that the German Kaiser had kept us out of war. Well, the proposition doesn't seem to be as dangerous then as it looks. This thing is all over and nowhere is there any definite talk about it that you can really tie to.

Now let us see what we really do want in this scheme of industrial efficiency in order to be really prepared for war. In the first place, we need to unite this country itself on a basis of patriotism, on a basis of idealism so that we may have difficulties between labor and capital settled easily and with ease of adjustment. That is the first thing that we need, a real scheme of preparedness. We cannot afford to have a divided front on our own soil. That will mean a better distribution of wealth, a better division of wealth. You know that in the last twenty-five years the wealth of this country has increased four times over. In 1890 this nation was worth sixty billion dollars, last year it was two hundred twenty-eight billion dollars. In 1890 fifty-two per cent of the people owned five per cent of the wealth, and last year it took sixty-five per cent of the people to own five per cent. In spite of the fact

that it increased that much, it was so concentrated that it now takes sixty-five per cent of the people to own five percent of the wealth; and the Industrial Relations Commission showed that sixty-five per cent of the wealth of the United States is owned and controlled by two per cent of the people.

These are the things we need to look after. Not only do we need to get after the question of distribution, not only do we need to teach more idealism but we need to look after the health of the country, all these things. We need to abolish a lot of our parasitical industries in this country. We have got thousands and thousands of men and boys engaged in industries absolutely parasitical and destructive of labor and capital.

These are the things that the schoolroom must take up, and we must teach a higher idealism concerning these things. I am astonished to find a great many people will talk about military preparedness and their heads will hang low when you say, "What are you doing towards the abolition of parasitical industries in this country, when you realize that this country is, as you say, in need?"

I wonder if we can, ladies and gentlemen, get enough idealism into the American schoolroom at the present time so that we can, during times of peace, adopt those wonderful things that the nations of war have been compelled to adopt in war. If we have got some real patriotism and if we have this real idealism, I want to join hands with the preparedness people. I want you to extend to me your hands, that you will use your influence and I will use mine, to get my country to adopt in times of peace the things that the nations of war have been compelled to adopt in times of war for the sake of victory. Let's look after the liquor business.

A German soldier that was captured in England said last week that this war had accomplished three things, and I would like to have this nation get three things in time of peace. He said that this war had taught the Englishman to fight, the Frenchman to pray and the Russian to be sober. Good! These are the lessons of war. Let's get it here in times of peace with idealism. Those are the things that will make us truly prepared for the conflict that is to come. These are the things that we must take up in our schools. That is the idealism for which we stand.

I am in favor of something of an army. I am in favor of something of a navy, but I am more concerned in getting more for the money we have already spent rather than doubling the appropriations, because I look at the figures and I find that before this war started this nation appropriated three hundred million dollars annually for

army and navy and Germany only appropriated three hundred eighty-nine millions. The only difference was, Germany has both an army and navy and our preparedness people told us that we had neither. I am concerned more with that attitude of mind which will prepare honestly the masses of the people to see to it that we get more for the money we have already spent and are spending, and when we increase the expenditures to see to it that we get increased efficiency, but I am not wholly content with simply doubling the appropriations.

Oh, yes, we need all these things. We need appropriations, but we need a whole lot more than material wealth in this country. We need some real idealism. This is a materialistic age, and being materialistic, it has shortened brain-power. We have already got more wealth than we know what to do with. The nation itself has not enough brain-power, enough idealism, to function properly with the material possessions which it already possesses. The great question is not how to produce more wealth, but how to hold the blessings which democracy has already extended.

IS VOCATIONAL EDUCATION A MENACE TO DEMOCRACY?

DR. DAVID SNEDDEN

Professor of Vocational Education, Teachers College, Columbia University
New York City

Mr. Chairman, ladies and gentlemen: There are many symptoms of public interest in the promotion of vocational education, of which the passage of state legislation and now the almost complete passage of certain national legislation are among the most manifest, although perhaps not the most fundamental. At the same time it must be recognized that there are a considerable number of people in this country who view this movement for vocational education with disquiet, and the subject that has come to me today is not of my own choosing, tho it is of my welcoming, because in asking your Program Committee what phases of this subject they thought needed discussion at the present time, this was one—the question of the relation of vocational education to democracy and to our democratic institutions.

It seems to me that there are perhaps three classes of people who are thus distrustful of vocational education in its relation to democracy. There is first of course, as we all well know, an ancient tradition in academic circles, dating back thousands of years literally, that only that kind of education is worth while that takes our boys and girls away from the manual occupations, the dirty trades or the sordid occupational pursuits. That is a very ancient schoolmaster attitude and a very natural one, too, because especially before the coming of compulsory school attendance, the schoolmaster always had a struggle to keep his boys and girls apart from the practical occupations of life as long as possible. He always realized that there were selfish parents who wanted to send their children early to work. In the mediaeval days there was always the pressure to take the boy out of the academic school and put him into apprenticeship; so that we have surviving still a very strong attitude prevailing in academic circles.

The teachers of our classical subjects in high schools naturally dream of the future of their brightest pupils in terms of professional callings and some of leadership, and they dislike very naturally to think of them as pursuing callings that are followed by the rank and file. They tell the story on a Boston school teacher who was having some trouble with a boy in her school room, and she said to him by the

way of warning, "If you don't study harder and better, when you leave school you will have to work for a living." Well, we can easily see what her conception of work was.

Now, I think that the opposition from that source often seizes upon any pretext to call education undemocratic. Then there is another class of people in this country, fortunately a diminishing number, who have always felt that public support of education and more particularly, making it free education, was undemocratic. Some of you may have read a most interesting article on this subject by a noted educator in Connecticut a couple of years ago, a Mr. Fox, advocating fees in high schools and insisting that the present system of free tuition in high schools was most absolutely undemocratic. That same opposition has been encountered in the formation of our state universities. They were long alleged to be undemocratic because all the people had to contribute to their support and only a few, the children of the rich or the elite, were going to get any benefit from them. Farther back, in the early history of New England, you can find the same argument against free elementary schools, that the man who didn't have any children had to pay the support of the children in school of the man who was negligent enough to have children. That is simply a mistaken interpretation of democracy.

Then there is another class of people in this country at the present time, very small but very influential on the whole, because it embraces some of the ablest thinkers in our midst in its numbers, who are not at all pleased with the present trend of things in the commercial and industrial world and who, while admitting all of the iniquities that will follow in the train of our millions of children who will never have the opportunity to equip themselves, are nevertheless convinced that until there has been accomplished a complete reorganization of our whole democratic order, it isn't right that the public school system should take on new functions that in any way whatever seem to have an affiliative relationship with these existing industrial ills of the social order.

In other words, I think some of these people would say, there is a situation that is bad and it will have to get worse before it can get better, and consequently the attempt to put in effect merely ameliorative measures may in the long run do more harm than good, just exactly as when one tries to poultice a wound or an illness instead of having a fundamental operation.

My own personal feeling is that the people who are speaking along that line at the present time are not very familiar with the fundamental facts of our economic life and of the conditions that are bound to

confront us in proportion as we try to maintain on limited areas in any country a very large and increasing number of people. In other words, I fear that the anticipation of anything like fundamental changes in the near future in the social order are so utopian or so visionary that at least we ought not to base our programs upon them until we see our way rather clearly, which I do not think we do now at all.

Now, it seems to me worth while for us to analyze pretty definitely and in as specific terms as we know how, this question of the relation of vocational education to democracy as we are gradually building it in this country. But as preliminary to this discussion it is essential that I indicate what I mean by vocational education, because there are really various interpretations abroad at the present time. I interpret vocational education as any type of education that has as its distinctive purpose, a clear-cut distinctive purpose, the object of preparing our young people for vocational competency in some one line or field of work. In other words, a system of training that would make a good physician, for instance, in almost all respects is vocational education, as is equally, a system of training that would make a good lawyer, on the vocational side. But in each case that part of the total education of each that is distinctive should be called vocational. Their common underlying general education may well be the same. It seems to me that the vocational training of the physician is absolutely distinct from that of the lawyer. The training that will make a young man a good dentist and the other training that will make his brother, with the same general education, a good stenographer, are, of course, fundamentally alike. The training that would make, in training a pair of twins, one a good tailor and the other a good carpenter are, of course, you will readily see, distinct forms of training, simply because the occupational life of our world has absolutely split itself up along these lines.

No one of us in his waking moments would admit that the form of vocational education that made a man a good gardener, an effective producing gardener, would make him a good citizen. I agree entirely with what Professor Roman said of the need for better civic training, but of course, civic training is something again that must be largely common to all our training. We want substantially the same civic training for the dentist and the fireman and the gardener, although their occupational training is entirely distinctive and specialized.

Furthermore, I don't call that vocational education today—and remember that we are absolutely overwhelmed with proposed substitutes for genuine vocational education and other things that are said to be just as good and other schemes in which we play at "make-believe," at vocational education, or deal in imitations—I don't call that vocational

education which does not have a conscious and intelligent relationship in its program of work, to the callings that men follow. It doesn't follow at all that any vocational school, whether all day or part time, continuation or evening, is to give all of the training for vocations, but it seems to me that no other plan of training can be effective than that which consciously knows and organizes the degree and the kind and the phase of vocational education that it gives.

For example, I can conceive of a school that would take persons who have already spent two years in the tailor's education, or the teamster's work or the dentist's work, and would give him supplementary training as we often do now in our evening classes; but of course, all of you who are connected with evening work realize perfectly well that that kind of vocational education can only be effective when it is related to the practical work that the man follows during his other working hours. If, on the other hand, we undertake to give a one or two years' course initial to, or preparatory to, a trade, we can only make that effective by realizing and knowing what level in the trade we lift the person to; and in my estimation, more and more we must make arrangements with all of those employes and employers who control the conditions of apprenticeship, so that that stage can be recognized.

Therefore, I am speaking of vocational education as something distinctive. In all of my own thinking, I always set vocational education aside from that which I call general or what in the upper grades, at any rate, I prefer to call liberal education, which includes the training of the citizen. It is of the utmost importance in the growing, complicated civilization of this country, with all our problems, among the most acute of which are those of the relationship of different economic classes—it is of the utmost importance that we should steadily build a strong citizenship. But the present moment I am opposed to asking for more time for that in the schools, because I think that we make such very poor use of the time that we have.

Now, I have just recently been set the task of analyzing the pedagogic contributions of Boy Scout education at its best, and it happens that, having been a member of the Greater Boston Council, and having had a boy of my own going through the various stages of it, I have some understanding of it, and I must confess that from the standpoint of character formation and training for citizenship, the Boy Scout organization, taking our boys from twelve to fourteen, does its work so much better for that limited class that it reaches than our public schools, that I feel that we have a great deal to learn there.

During the years from twelve to fourteen, which we now claim by

right in all of our northern states, for full time school attendance, we have all children in school, even if they aren't in the upper grades, and then substantially speaking today, we do obtain the time of about half of all of them from fourteen to sixteen. That is because they are coming voluntarily to our high schools in constantly increasing numbers. In that period, of course, we have a very precious time for civic education; and yet our means and methods and schools for these boys from twelve to sixteen are lamentably poor and weak and inefficient and purposeless for the last two grades of the elementary schools and the first two grades of the high school, as well as the lower grades for retarded pupils who are in the fourth and fifth grades when they are thirteen or fourteen years old. I hope that the coming of the junior high school is going to show us how we can bring about a more purposeful civic education in those years.

You must remember that all through history the youth was regarded as having attained to manhood at sixteen years of age, his preparatory stages having been largely completed at that time.

Just a word in passing as to what we mean by democracy in education. Of course, we have had various definitions of democracy, but I think that the nearest we can come to it, so far as political democracy is concerned, is the provision of equal opportunity, as far as society operating in its collective capacity can do it, towards ensuring equal opportunities before the law and for justice, for the participation in the suffrage, for the participation in the control of the government—an equal sharing in all of those opportunities that society collectively offers; and on the whole, we have produced the most democratic system of public education in the world, largely because it is free. Education in Europe is not free, and the tuition rates vary for different types of schools, making them in effect, class schools. We have not done that intentionally in this country. Our high school education is undemocratic in a degree, and that is that it offers so much more on the whole for those of the pupils who can probably go on to college and beyond, than it does to those who can probably not go on. Therein in our ignorance and in our inability to be inventive, I think we have been undemocratic.

I always pity the lot of that very large number of American scholars who can spend only two years in high school, because it seems to me that we do feed them largely upon husks at the time when we ought to be feeding them a very nutritious diet in the line of making civic understanding and intelligence and insight and all of that; but when we think of an educational system as being contrived to offer op-

portunities, as far as possible, to all alike, I think that we have achieved a large part of our ideal democracy.

Now, while I have already said that our accepted public schools, the schools that we now have, are very democratic, it must be remembered that they are democratic, comparatively speaking, only from the standpoint of that common education which we are seeking to give to all, and that on the whole, taking our public and private schools together our system of education is most undemocratic, in so far as it provides, as of course it intentionally provides, very meager opportunities for vocational education.

What is the situation before two persons, John and James? John belongs to a large family of children and is the son of an artisan. James belongs to a smaller family and his father has an income of three or four thousand dollars a year, for which of course, James is not responsible, just exactly as John is not responsible for the other thing. John can only stay in school until he is fourteen or at most sixteen years of age, because at that time the burdens bowing the shoulders of his father are becoming pretty heavy, so John must enter upon occupational life at, say sixteen years of age.

Now, he has had to continue in the general schools, barring the possibility that he might have of getting such training in some of our cities in a commercial school, which is, up to that age, only quasi-vocational anyway. So John must enter into employment at sixteen. Now, of course, if conditions were as they once were, John would find in the industry itself, all sorts of opportunities for being trained vocationally, but under modern conditions he enters into an industry that is, in a sense, speeded up. Every person is working for production and not for education, because education has always been only a by-product of industry, and it is a by-product almost of necessity on the farm and in the workshop and in the office; but once the time was when he could have been vocationally trained in his occupation.

Now what happens? If, entering into some line of productive work, he can't "steal a trade" if he isn't capable of obtaining entirely by himself through his unaided efforts, proper vocational efficiency, presently he finds himself in the list of the "fired," and he goes on to something else, but again he is fired and again and again until we find him at the age of twenty-two or twenty-three a more or less hardened and discouraged and cynical person, not interested in saving, not convinced that he is worth very much himself, the type of man that certainly can not be regarded as a very good citizen.

Take James. James, because of greater abundance of worldly goods possessed by his father, goes on through the high school. At

the close of high school, he finds all sorts of vocational schools open to him—an absolutely free state normal school, if he wants to be a teacher; a school that charges some fee, if he wants to be a dentist or a physician or lawyer; many free schools in the country if he wants to be an electrical engineer or navigator or a captain or some thing of that sort. If he wants to enter upon vocational preparation at sixteen years of age, he can complete a course in some commercial school and get at least a good deal of a start. There are all sorts of opportunities open for him because he was able to stay longer, because he belonged to a rich family, or at least a richer family than John's.

"To them that hath, shall be given, and from them that hath not shall be taken away that which they have," sometimes seems to me the motto upon which the historic vocational education has been founded.

The boy might go farther. He might join that select class that goes to West Point, and he would not only receive tuition free, but would receive board and room free of charge. He is a selected individual.

Now, my own feeling is very strong that the continuance of that situation is very undemocratic from the standpoint of vocational education and proficiency, and I believe that the dominating ideal back in the minds of a great many people today in accepting, to a certain extent, certain conditions of the social order as more or less enduring, (that is, it does not enter into the question of providing board and room and clothes for the boy of poor family) is that society ought to do more to help the boy or girl to get a start in life; but of course, always subsequent to the period of compulsory education—that period, I think, we must reserve for general education religiously.

The persistence of the conditions which bring it about that half of our young people must enter upon industrial productive work at sixteen years or earlier, with no preparation, in my estimation, constitutes a very distinct menace to democracy, because the results of the hiring and firing system, the results of the situation that a boy, for instance, at sixteen or seventeen starts out on a farm or in an office, or a girl in her home, poorly prepared, having no mastery of productive work, are that incompetence is extended and perpetuated.

Now, of course, we must proceed in recognition of facts that are more or less fixed. For example, we must hold that a family of from four to six children is the ideal family for American life. We must recognize that today more than half our people, much more than half our people, have incomes of less than twelve hundred dollars per year per family. We must interpret that in terms of the ability of the

parent to prolong the education of his child as a non-producer or perhaps even as a burden on the side of clothing and food. We must recognize that our standards of living in America are improving. The ability of the average worker to keep his children longer in school is increasing all the time, as is manifested by the constantly rising attendance in our high schools; but nevertheless, somewhere about the age of sixteen, I think we must recognize for many years to come, as an embarking period of our young people in some form of productive work.

There is one other feature of our vocational education itself that I regard as being so ill advised, so unfortunate, that it alone makes our education undemocratic. We started a few years ago what we called day trade schools, and the programs of these day trade schools were usually, on paper, stated as being four years in length, because the historic American high school had a four-year course. Very few if any of our pupils completed a four-year course, but from that day to this, we have had a tendency, in organizing vocational schools, to build them on a sort of an abstract, theoretical basis without consideration of the conditions which exist today in productive work.

We are today on the whole, per unit of population, the most productive people in the world, as Professor Roman has pointed out; partly due of course, to our unequalled resources, partly due to the great organizing ability of those who captain our industries, and partly due to the higher standards of living and the greater proficiency of our workers who do attain to any considerable degree of proficiency. We are, therefore, large producers, but in every industry in America today in which this dynamic condition of affairs exists, in which production is growing and in which standards of living of the workers are rising, in practically every one of those industries and in every one of those fields, the tendency is more and more towards specialization, as it is today in the legal and medical professions, and that is one of the conditions that gives us the maximum of productivity.

For instance, in the manufacture of automobiles, we far surpass the rest of the world, and considering price and quality together, we at least equal the rest of the world, and yet from seventy to ninety percent of the people who do this work by no stretch of the imagination could be designated as machinists. They are specialty workers, piece workers, and their proficiency is high and they receive a high wage, (the wage of these is higher than that of all-around machinists unless these are put in positions of foremen or makers of jigs and fixtures). The wage of the specialist is generally high. The people who are manu-

facturing shoes in Brockton today, and the other Massachusetts cities, are more highly paid than their predecessors, and with that they are steadily moving towards an eight-hour day, which gives them a long amount of time to offset the work.

Now, we schoolmen, when we discuss this subject, find it exceedingly hard to get away from present conceptions, based upon what things were twenty or thirty or forty years ago, and that accounts, in my estimation, for a very large part of the distrust in which the practical world of farmers and home-makers and office managers and industrial managers hold our efforts to establish industrial schools, because they think that we are old-fashioned, that we don't know what has happened in the industries in the last twenty-five years, that we are not up-to-date, that we are basing our programs on historic things just exactly as tho absolutely pitiful programs of our liberal high schools are based upon dead mathematics, dead sciences, and the dead languages; and that is the reason why the world distrusts us, because they see that we deal so much in the remote past, that in spite of all the great needs for better civic training and cultural training, we schoolmen face the past instead of facing the future.

There are problems of American citizenship ahead—problems of military service and the struggles of labor and capital, and the need of better culture, and yet our educational programs are all based upon the history that happened prior to the nineteenth century, upon the science that was more or less finished before the end of the nineteenth century; upon the Latin and Greek languages, that are ancient and have the smell and flavor of ancient things about them.

That is the feature of even our vocational education today, because I know of trade schools that are absolutely operated on the principle that "to them that hath, shall be given; and from them that hath not, shall be taken that which they have." It is right for a school, a school training for a given occupation, to eliminate those who manifestly can not be qualified for that occupation, just as today we eliminate ever so many people, we never let them get in sight of teaching or theology or law or medicine or engineering; we eliminate them long before they ever come up to this point, and it is all right to eliminate from a school for machinists, people whom we know can not become machinists; but that does not justify us in saying that the only people who work with iron and steel in this world are people denominated machinists. If we want to be just and fair to the children, to help the children to find themselves and to qualify themselves, we must build a system of industrial and other kinds of vocational education based upon the conviction that every boy and every girl except the extremely

feeble-minded, somewhere between the ages of fourteen and twenty-five, are going to work and they are going to find jobs, and the business of society, through a ramified system of industrial and other vocational schools, is to help them find themselves and to give them some preparation for it, even if it is only for a week or a month.

I hold today that a three month's course that fits a boy or a girl for a specialty is, in the sight of God and under democracy, as much entitled to your respect and consideration as a four years' course that fits for electrical engineering.

DEMOCRACY AND INDUSTRIAL EDUCATION

WM. B. OWEN

Principal of the Chicago Normal College

Mr. Chairman, Ladies and Gentlemen: I suppose that my function this afternoon is really to start something, that is, to start you to saying something, and really, I find it somewhat difficult to make the start. If I knew just which one of these papers I ought to discuss, or if I were free to choose which one I ought to discuss, I might easily start something, but I think I had better consider that I was put down to discuss the last paper rather than the one that was designated Industrial Preparedness and turned out to be a discussion on Military Preparedness. I would like to discuss military preparedness.

Is industrial education a menace to democracy? That is a very difficult and perhaps impossible task for anybody to attempt to solve, but may I just offer two or three considerations? In the first place, the whole problem of modern education is a problem of the maintenance of democracy. We have never had a popular education until we began to have a democracy, and if there are any weaknesses in our modern education, and I suppose there are plenty of them, because every time an educator gets up he spends a good deal of his time telling how weak it is—they admit it and they are experts—I think if we admit all its weaknesses, we should have to recognize they are weaknesses incidental to the attempt of democratic society to get control of and use the forces of society for the maintenance and furtherance of democracy.

Democracy is a political thing. I don't think there is any danger of our losing our political democracy in this country through embarking on a program of industrial education. I don't think that anybody thinks that we are likely to lose our control through the right of suffrage, etc. Democracy also is a form of industrial organization, and I should imagine that we have problems there that are tremendously important, that no society has worked out, and that are new because of our new form of industrial production, etc.

Those problems, it seems to me I can say briefly, we are more likely to solve if we have an industrial form of education than we are through the maintenance of the present system. How are we going to have insight into forms of industry which is so complicated as our

present form of industry unless we educate people, to the use of the processes that are industry itself, and the people who are inside the industry are the people who are going to give us the largest contribution towards the solution of this problem of an industrial democracy.

Then democracy is a form of social organization, and perhaps, being a schoolman, that is a point that seems to me to be most vital in the whole situation. I should like to have been able to adopt Dr. Snedden's definition. After all, we want a kind of society in which the individual who is born into the world shall have the largest chance to give the most to the world and to get the most out of the world, and if we attempt to do that, it seems to me again that we have everything to gain and nothing to lose by a program of extending our present educational system so as to care for the industrial training of young people.

As Dr. Snedden has pointed out, the whole problem, if one can analyze so difficult a one by the use of two or three fundamental notions is due to the fact that until a very few years ago, the best place for a man to get his training for industry was in the industry itself, and that is why we never had the problem of industrial education in regard to our schools, because industry took care of that problem better than any school system could take care of it. Now with our machine-producing industry and the introduction of modern science, the two great factors that have changed industry radically, it is impossible for a boy to go into an industry and become a master of it and maintain himself in it, and for that reason we have to use the school, and that is why we are turning to the school in order that we may give a boy such a training that when he comes into industry, he will not be swamped by it but will be the master of it.

In our inherited school system—and I think that is a vital point—it is a fact that this liberal education of ours did contemplate taking care beyond the elementary school period of only ten to fifteen percent of our young people, and it never contemplated the education of the other eighty-five percent. Now we have waked up to realize what seems to me to be a patent fact, that eighty-five percent of our young people are left without adequate provisions for an education unless we expand our existing system so as to care for them and to care for them in the way that they can be best educated—and I don't mean best from the standpoint of people that hire them, but I mean best from the standpoint of the people themselves. Let them be the judge of what they want.

It is in the attempt to provide for these other eighty or eighty-five per cent that we in America are wrestling with the problem of

giving them a new form of education that will put them (this eighty per cent) in the possession of the forces and in such self-possession that they can live out their lives in the most satisfactory way, just as in the past we have taken care of the ten or twenty per cent who have gone into the professions, and I don't see how we can contemplate for a moment any possible danger in enlarging our institutions and our equipment for doing this work for eighty percent of the people of the country.

How could that menace democracy? How could it do anything else but broaden it in every possible way? We have had about six, eight, ten years, perhaps ten years the country over—we have certainly had in Illinois five or six years—of constant discussion of the trend of this movement. I think we know pretty well the general trend of the situation. I think we know in a broad and general way the problems that we have to deal with. I think we know very little about the specific working out of many problems, because we have done so little, but what we need to do is to get a broad view of the general problem and then get enough money and enough trained intelligence and consecration and devotion and enough backing from the people, both by law and public support and every other way, that will permit us to go ahead on the program that was suggested by Dr. Snedden in his closing sentence, and find out when and where and how we can do this in the best possible way. We have had centuries of experimenting in how to train a boy to be a lawyer or a doctor or a minister or a writer, and we have had mighty few years to train him to enter into industry and the arts. We will have to make up for that lost time, if it may be considered as lost time, and we want to adopt a rational experimental method which means merely this, that we are willing to experiment and that we have confidence in ourselves and in our intelligence, and that we can go ahead and try something, and if it doesn't succeed, we can back out and try again.

So far as democracy is concerned, I can not believe that so long as we enlarge means, intelligence and control over the world of affairs and the world of nature, we are going to lose the gain that we have achieved through these past centuries.

THE CHAIRMAN: No program of this sort would be complete. In fact, it would be incomplete if we didn't hear from our old friend, President Harvey of Menomonie Institute, that is, the Stout Institute. We will call on Dr. Harvey.

DR. HARVEY: Mr. Chairman, I am drafted. I am not a volunteer, as your command indicates. I have very little to say except that I want to commend the statement of Dr. Snedden in which he indicated

the great necessity in vocational education of a clean-cut, definite, well organized idea of what was demanded in the education of the individual to make him effective in his vocation, and of the further work in organizing that for instructional purposes.

I want to commend equally his attitude, as I understand it, that for those things which are not distinctly vocational but which he classified as belonging to the liberal education, but just as essential for this individual as for any other, there should be the same necessity for careful, definite, well organized concepts of what is essential for the individual in this phase of education.

And then I want to go one step further and suggest this, that for the large number of these people whom we are considering today in the field of industrial vocational education, whose school work will be confined to the industrial school, the necessity of combining in the industrial school organization, both types of work, the type which means that clean-cut, definite purpose to develop vocational efficiency, and the type which means to supplement that in this school, which shall make the individual a better citizen, a better man, a better human being. We can't separate these things for these people; they must go together.

I believe we have yet some things to learn in this country in the way of production. In our great new country, with its fertile soil, we find the average yield of wheat about fourteen bushels per acre, while over in England and in Germany and in France, on land that has been cropped hundreds of years, it runs from twenty-three to thirty-five bushels per acre. We have something to learn yet in the way of production. I note today in the paper that the United States has gone to England with a contract of three and a quarter million dollars for the production of shells at a price of two hundred dollars apiece less than they can be produced in this country, and the bidders in this country tell the reason why they are unable to produce them.

We have some things yet to do in the development of the productive industries of this country. I have no fear as the last speaker said, that anything which develops the intelligence of the individual—and I care not where he may be, whether he be the worker in the factory or the worker in the profession—anything which develops his intelligence, his conscience, his love of fair dealing, will injure democracy or is a menace to democracy. If we have a democracy that is endangered by that sort of education, the quicker we get rid of it and substitute something else for it, the better.

THE CHAIRMAN: I wish to introduce now Mr. Weld, Director of the Pullman Manual Training School.

MR. WELD: Mr. Chairman, Ladies and Gentlemen: This is rather a surprise to me, as I had no notion of being called for today; but the educational problem is not a new one to me. I have been engaged in it all my life. I think there is no one in this room that can claim a wider range in experience in educational matters than myself. I have filled every sort of position, practically, from a teacher in grade schools to the deanship of a graduating college and the directorship of an engineering school, so that the problem is not a new one to me.

I took up the question of vocational education as it presents itself in the Pullman institution as an educational problem, and I believe it to be as truly an educational problem as the university course. Time and again, I have had teachers recommended to me for employment in our institution on the basis of settlement work which they had been doing or other philanthropic work—all educational work is philanthropic, but I do not consider that the work which we are undertaking at Pullman is in any sense philanthropic or settlement work any more than the University of Chicago.

One thing that we need to learn in regard to vocational education is that it is a serious educational proposition, just as much so as engineering education or any other line of technical education. The man who can cut out a milling machine gearing such as is required in many of our modern machines, must have just as much skill and intelligence as a man who can perform a surgical operation, and he needs as careful and as detailed a training.

One of the things that the industrial educators must keep in mind, too, is the need of a liberal education in association with industrial education. If the industrially trained man is to realize his greatest opportunities, his greatest possibilities, he must be backed by a liberal education. He must know the English language. He must appreciate its literature. He must know something of the history of this country and of the political institutions of its people. He must be a man of scholarship, not necessarily academic scholarship in the ordinary sense of the word, but he must be a man of intelligence, of developed and ripe intelligence.

There is another point of view. Labor has attained a fair degree of remuneration and the laboring man has secured for himself a fair amount of time at his own disposal, a fair amount of leisure. Nothing gives better index to the character of a man or the type of his manhood than the manner in which he employs his leisure time. How is the laboring man going to employ his leisure time? The way in which he does employ his leisure time largely determines the difference between himself and the professional man, between the social status of the two.

If the laboring man has a high degree of intelligence, an intelligence which enables him to appreciate good reading, grand opera and all the other good things of this life to which he is able to attain, there is no reason whatever why the machinist or the pattern-maker may not stand as high on the social scale as the physician or the lawyer. That is where he belongs, and he is gradually through the medium of industrial education, through the medium of such schools as are now being established, he is gradually to attain this standard. The time was when the doctor was not ranked high in social position. I have nothing against the barber, but the doctor was ranked with the barber, in fact, he was a barber.

I presume that you would like, since I have been called upon, to have me say a word or two in regard to the policy which is being carried out at Pullman in the Pullman Free School of Manual Training. This school was endowed years ago by George M. Pullman, of the great Pullman Company. It is only within a little over a year that the school has opened its doors to students. Our plan is to receive students who have graduated from the eighth grade. That is not an absolutely rigid requirement, but ninety-nine per cent of our students fulfill that requirement today. They are then given a variety of work for two years, which I suppose can be described in a certain way as prevocational. I heard that term discussed here today in a way which pleased me and satisfied me very much.

The work is general. The student is finding himself. At the same time, we hope that he is finding out a good many things that he ought to know, whatever he does. He is working in the pattern shop or the woodworking shop in general. He is working in the blacksmith shop, in the machine shop, to a limited extent, and also in the iron foundry. He will have a general survey of these branches of work during the first two years of his course. At the same time he is emphasizing mathematics and drawing from the vocational standpoint. He is in the drawing room or the scientific laboratory, elementary scientific laboratory, every day for two hours, and in addition to that he is taking a full proportion of work in English and history. The school day is eight hours in length, from eight to twelve and from twelve-forty to four-thirty.

Young men take courses in domestic arts and sciences. Their schedule is full through the day. Our class work is done in long sessions. We have followed so far the method of supervised study. The study period and the recitation period are combined into one long period. I do not like to boast of the results, at any rate this early in the experiment, for we are in a certain sense, in the experimental stage

so far, but we find that the eight-hour day is no hardship to our students. They are in no hurry to go home. They show no impatience to go home. Neither is the fact that we keep school for forty-eight weeks in the year a handicap in any way. We saw last summer, the only summer in which it has been tried, no tendency for the students to leave the school. They didn't seem to care for the vacation at all. They came right along to the school just as a matter of course.

I don't think that we have tried anything new at Pullman. I know the ideas have not been new to me. They have been ideas that I have heard of for many years, but we have had a singularly free opportunity there to put into operation certain things that I believe schoolmen in general believe in, and they are working out with a fair degree of success. I do not know, of course what the future of the experiment may bring forth, but so far we are in a very happy frame of mind over the situation which we have at Pullman; and I thank you for this opportunity of meeting you and hope to meet you further.

THE CHAIRMAN: We are very grateful to Director Weld for telling us of the plans and purpose of this school. It is bound to take its place in the educational life of the city. It is a free school.

THE DOUBLE PROBLEM OF VOCATIONAL EDUCATION FOR WOMEN

DR. DAVID SNEDDEN

Professor of Vocational Education, Teachers College,
Columbia University

DR. SNEDDEN: Madam Chairman, Ladies and Gentlemen: Some four or five years ago, when I was trying to perfect some of my sociological studies, a very wise sociological teacher in this country accused me and all my brethren and sisters in our profession, of not having reached the stage where we could think statistically. He said that in education, all his experience was that we always thought in terms of individual cases and that we had not reached the point where we knew how to manipulate knowledge on a statistical basis; and he said that social knowledge, at any rate, can never become scientific, that it is quite impossible to talk of it as being scientific, until you know how to talk in terms of statistical quantities.

Now, because I am going to try desperately to-night to talk, in a way, in terms of statistical quantities, I want to forewarn you that when I do speak in terms of a certain quantity, I recognize perfectly that there are a great many individual cases that lie outside of the quantity on which I base my generalization.

We are to talk about the vocational education of women and girls. Vocational education for me denotes and connotes something very distinct, very different from general or liberal education, and when we face the question of vocational education for girls and women, if we are to think statistically, it is essential that we should have before us what are the prevailing numbers of those about whom we are talking. In fact, it is important that we should realize what the statistician calls the modal quantity, the modal number.

You all know that the large majority of girls and women do not go to college. That very small minority who do go to college are very important, probably of far greater importance than is indicated by their numbers, but nevertheless, in point of numbers, they are a small minority. Not half the girls of the United States, nor a third, graduate from the high schools, so the graduates of the high schools constitute again a minority, not a majority, not a modal quantity. About half the people of the United States live in urban communities. If we are to generalize about the education of girls and women, the probabilities are

that we should also make a rather sharp distinction between the girl or woman living in the rural communities and the girl or woman living in the urban communities.

I am not at all clear yet on a good many points connected with the girl living in the rural communities, because her condition is in a state of considerable transition, but there are certain facts connected with the lives and work of girls and women in our urban communities today that are matters of more or less complete statistical knowledge. Of the girls living in urban communities or village communities, it is true today that the large majority of them, the modal number, in point of numbers again, come from fairly large families—four, five, six children in the family. I recognize that there are many families in the United States with no children, many more with one child or two children, but those families I am leaving out of account tonight in my attempt to generalize, because the large majority of the girls and women with whom we deal are themselves the offspring of families having four, five, six or more children—the normal family group, not abnormal family group. We may think, of course, of a family of fifteen children as being a rare type, at one extreme of our curve of numbers, and the type of family that has no children or one or two children, even though they are wage-earners, as being at the other extreme. They do not count as modal quantities.

Now again, taking the girls that come from these larger families, it is true that the large majority of them, the modal quantity, come from families in which the income of the family is not large. I recognize that there are some families that have an income of three thousand, or five thousand, or fifty thousand dollars a year, but they are uncommon. The great bulk of American families have a family income ranging from nine hundred to fifteen hundred dollars—the type of family spoken of, four to six children.

So again speaking in terms of modal quantities, common quantities, big quantities, major quantities, the girls from these wage-earning families—and of course, it is needless to say that this type of family is not a servant-keeping family—the girls from this type of family do go out to work for wages rather early. We say rather early—rather late would be just as correct to describe it, because it is later now than it used to be. It used to be earlier in years; at least, when they continued their work in the home, but of course, we are all familiar with the now oft repeated statement that modern industrial developments, which naturally have affected the village and city most, have brought it about that where there are two, three or four females in the family of working age, from fourteen years up, some of those will

have to go away from the home to work, from the city or urban home, if they are to be kept busy, and so these girls leave the home; and that is one of the commonest and yet, I think, one of the least interpreted of the social phenomena of our day.

You can see this phenomena objectively illustrated in the vicinity of any town or city when you take a car early in the morning or late in the evening. I have sometimes wished, as I said yesterday to the Woman's Club, that some epic writer would rise big enough to lay before us this picture of millions of girls, little girls, untrained girls, going away from the home in the early hours of the morning, coming back late at night; going off to work in environments and under conditions of which their parents don't dream, and on the whole, the remarkable success, all things considered, that follows their efforts.

I remember taking a very early morning train out of Boston some two or three years ago, that I had to take in order to make certain connections, passing through the town of Waltham, the great watch manufacturing town, just as the dawn was breaking on a winter morning, six or seven o'clock, or half-past six, with a gray darkness still hanging over things; and as the train sped through the streets, as far as I could see were literally hundreds of little girls hurrying onward to the great watch factories, there to make the watches that you and I wear. Of course, they were working a fifty-four-hour week and they had to get to work, probably, at seven o'clock, but coming as some of them did, walking for many blocks, naturally an earlier start was necessary.

That typifies what is happening in all our industrial and commercial communities over the United States. In our department and other stores we are being more and more waited upon by these people who range from fourteen-year-old girls to young women; so the wage-earning careers of these young women constitute one of the modal facts.

Another fact is that the large majority of these young women who thus go out to work, the great majority of them, the modal quantities of them, will turn back after four, five, six, seven or eight years of wage-earning careers, either in teaching or clerking or stenography or working in a factory—they will turn back and become home-makers themselves. They will marry, try to build up a home, and try on the whole to avoid wage-earning. The large majority of them will have children. They will try to rear those children to manhood and womanhood again, repeating the cycle, in large degree, of their fathers and mothers. Most of them, the modal quantities, will carry on all the responsibilities of home without the help of servants, and they, in turn,

will have not quite so many children, statically, as their fathers and mothers; but on the part of all of those who are really to contribute to the permanent upbuilding of American society, they will have from four to six children, or the particular race or stock that does not, will, of course, be one of the expiring races. That is one of the cold facts of statistical science that none of us can avoid.

So much for the background of this topic that I have under discussion tonight. Now, one other point, as preliminary: Of course, in discussing any problem of any type of education or social condition, if we care to, it is perfectly possible for us to build castles in Spain. I am to some extent myself a builder of castles in Spain. When I have nothing else to do, I like to dream about things as they might be, or perhaps dream about things as they ought to be. But building castles in Spain is a different work from building castles on the earth; so different that we should know when and where we are building castles, and for the purpose of my talk tonight, I want us to remember that I am building my castles on the earth, to this extent, that I am assuming that for the next generation, at any rate, certain of the conditions that now prevail in society will continue; in other words, for example, society will not evolve to the state where it is going to contribute financial support to the rearing of children; it will continue to leave that to the parents.

I know there are those who think that the state ought to endow motherhood, which of course would change the whole economic status of the family, but whatever that kind of a proposal may encounter in the way of fate some years hence, I don't look upon it as being within our generation a practical proposal for the United States, so I leave it out and I assume, therefore, that during your generation and mine, which we are talking about tonight, the families of the country are going to rear their own children; that, while they will get free education for those children in the public schools, the family will have to provide for the food and clothing and shelter in each case.

We may say, of course, that this ought not to be so. We might have our dreams or our visions of a very different state of affairs, and it is possible that a very different state of affairs may come very suddenly, because the world apparently has reached the stage where cataclysmic social changes are not as uncommon as they used to be.

There is another point, and that is that while on the economic side, society will continue for some years to come to leave the rearing and support of children to the parents, on the side of educational fitting of the children for life, society is going to follow less and less the *laissez-faire* policy, the let-alone policy. Society is going to take that whole matter more completely in charge and extend education a good

deal; and I would like to discuss this problem of the dual education of girls. First, of course, is the vocational education for the wage-earning calling, and next, the vocational education for the home-making calling which comes later.

I am going to discuss this problem on the assumption that we are moving rather rapidly towards a very considerable enlargement of the functions and the scope of public education, that the public is more and more willing to support this education, and that consequently it is that the education itself shall be efficient education, shall be an effective education; effective, I mean, in realizing any particular purpose that we have in mind, whether that be teaching of laws of health or teaching ideals and standards of culture or civic responsibility or vocational efficiency.

I have long ago ceased to use any single word to describe the purpose of education, because education must be interpreted more and more in terms of a multiplicity of purposes, and many of these purposes are very much unlike each other, and yet every one is complementary to each other, just as the different elements in this building in which we are tonight are complementary to each other, altho all the conditions of producing these different elements differed greatly the one from the other.

We are today in a primitive stage in regards vocational education, and I think the more frankly we admit this, the better. We are in a majority of cases, in what might be called the stage of faiths. We have a lot of faiths, and of course, faiths are sometimes prejudices, because a prejudice is a kind of a faith. Coupled with that, we have a certain experimental mindedness; we have a feeling that we are trying things to a certain extent, but after all, the bulk of us are coming into the field with faiths, and every particular profession or calling or cult that approaches these social questions brings with it, trailing after it, a series of its prejudices and cult faiths. If you ask the social worker about the education of girls, you will discover there a set of prepossessions, some of which are wrong and some right; if you ask the school teacher, you are going to find there also a large series of prepossessions, some of which are right and some of which are not right.

Of course, we have made a great advance when we have reached the stage where we admit that even some of our most cherished beliefs may be wrong, may have the elements of falsity; and it may be that we have developed and that we hold them in violence of facts if we dared assert the facts.

So we have today back of us a long tradition, in the case of girls and women, of struggle for what might be called rights to education—

a very long struggle that has left certain conditions in its wake. I spoke to the Woman's Club yesterday and referred to the fact that the programs of collegiate education for women show very many distinct signs of retardation. They are behind the men's programs very considerably, and there has been less pressure for their change. So if we take certain of the typical woman's colleges in the United States, I think we could find in them evidences of archaic educational practices, both in admission of applicants and in the practices and requirements imposed in the school itself.

Of course, in the high school our girls, on the whole, by virtue again of age-long traditions, are probably more submissive than boys. They throng our high schools in larger numbers than boys do, and they probably are more liable to accept the stated things than are the boys.

One other word finally: I feel, as I stated this afternoon, that we must steadily improve the general or liberal education that we offer to our young people in America. We must make the fullest possible use of the period now commonly allotted to compulsory school attendance. but we must be very careful in doing so to take cognizance of the standards of family life and the burden that the family must carry, before we go too far.

But whether we do or not, we must take this period for training towards citizenship, towards personal culture, towards all that general knowledge and appreciation which we so much need. I have stated many times, and I have really had the position controverted very seriously, that our American education, by and large, for our children between the ages of twelve and sixteen, the last two grades in the elementary grades and the first two years in high school—that by and large, that education offered to our children between twelve and sixteen is the poorest education that we offer, the most deficient in vitality. The first two years of the high school particularly, for that constantly increasing number of children who want a couple of years of high school education before they leave school entirely. The last two years of the high school education for the diminished number of those who remain, is I think, more fruitful; but for the large number who leave us on or before the sixteenth birthday, our general education is far, far from meeting the needs of an age in which our cultural problems are so great as they are at the present time.

Now, on the other hand, I feel just as confident that we can not effectively mix vocational education and liberal education at the same time and place. That is simply a matter of efficiency. If we could mix vocational and general education ideally, there would be a good deal to be said for it, but in practical life we never can. When people go to

work, in practical life, they go to work a stated number of hours and then all of their cultural life, their civic life, their leisure life, their recreational life, lies outside of their working hours. That has been an age-long condition; it goes back very far indeed. On the other hand, people living in the tropics or people characterized by a sort of economic "don't care" attitude, do mix play and work, but wherever we have productive efficiency, people dare not mix work and play.

I am, on the basis of considerable experience, absolutely convinced that we can not mix liberal and general education and vocational education within the same day and period except at a very serious sacrifice of both. In fact, I don't believe we have any so-called vocational school in the United States that could be characterized as fifty per cent efficient where that is being done. Such schools, in my estimation, are very ineffective contrasted with what might be a much better type of school, that has a concentrated program, that drives straight at one task and really accomplishes something. I am completely opposed to bringing in anything like vocational education within the present period of compulsory education, because, in my estimation, that is going to defeat the purpose of our general education.

Well, I think I will not enter into this other line. It is too long a story, but let me pass on to consider these modal quantities of young people who are going to work, wage-earning work. Let me take two or three assumptions. In the first place, let's assume that the period allotted to vocational education lies outside of compulsory education or the compulsory age period, as I think is found in every state where they made legislation on this subject, that vocational school attendance within the compulsory period is not recognized as permissible, and consequently the period devoted to vocational training lies outside.

Let me make another assumption. That is, in providing for the liberal education of girls and young women at any stage, we can profitably introduce a moderate amount of household arts or home economics or any of the related subjects; we can introduce a moderate amount of that on the basis of from two to four hours a week, as an element of their general or liberal education. My own conviction is growing increasingly strong that work introduced on that basis, if merged with algebra and history and English, does not function vocationally more than in a very slight, negligible degree, but that with a slight change of emphasis, it can be made to contribute to the development of the taste and insight and breadth of vision of what a home should be or what a young woman's work should be, or what are the possibilities there that can be made to function through, as liberal education.

Now, you see that I am defining liberal education in terms of breadth of vision and ideals and insight and taste; and I regard the things that we offer now to young girls between twelve and sixteen—I regard most of that as a mere mockery of liberal education. It isn't liberalizing, and I believe the public is justified in protesting against a great deal of the work we do now in the general schools, especially for pupils of these ages, because I think the education of our young children from six to eleven or twelve is vastly better in general but that the work in this period is not liberalizing and that accounts for the great willingness of children to forego it.

Recognizing now that we have these thousands and thousands of girls and their family conditions and their economic conditions and their progression towards matrimony and home-making, let us assume that society is big enough and broad enough to provide general vocational education for them, of what would that consist?

We introduced a phrase a few years ago, when we were aspiring for vocational education, that I found we can't use. We spoke about "dead-end" occupations or "blind-alley" occupations. Now in the modern economic conditions, those words are misnomers absolutely, except in the so rare and few instances that they are not worthy of consideration. What we have in this great order of things, where all of those thousands and literally millions of girls are going to work, what we have, are distinctly juvenile occupations. For both the boys and girls have juvenile occupations, and often very good wages are paid in them. Doffer girls and boys in the textile mills get five or six dollars a week. The age at which these people pass from juvenile occupations to adult occupations varies from eighteen to twenty years. You notice I am not using the word "trade," because we might as well recognize that in the historic sense of the word, "trade" is becoming as extinct as the dodo. Let us talk of occupations; let us talk of millions of people who are doing productive work, producing by the labor of hands and brains what you and I consume.

The age is eighteen or nineteen or twenty or upwards at which people enter upon adult occupations. Now, these little girls in their millions who do these juvenile lines of work, are not in very large measure, performing a juvenile work, that is preparatory to higher stages of work. That is simply one of the conditions of the modern specialization of industry, we here must recognize the play of economic forces that are absolutely beyond your control or society's control today. This division and specialization of labor means that the task that a person performs as a juvenile may not have any connection with the task that one ought to perform as an adult.

What does that mean in terms of an educational program for girls and women? Why, it simply means this, that when the girl has reached the stage where pressure in the home, her desire to lessen the burden of her support, makes her feel that she ought to become a wage-earner, at least to the extent of being self-maintaining, society ought to prepare her for that work as a juvenile—or a boy in the same way. Society should give some preparation—it may be very short, very specific, concrete and helpful; and then when, two or three or four years later, the girl has begun to emerge into womanhood, ready now for an adult wage-earning occupation, again society should provide a period of specific training, definite, concrete, and useful, for a special field again; and when, perhaps four or five years later, the girl, now a young woman, has reached the stage where she is to pass into that last and longest career for her, in many cases, that of the home-maker, society should again prepare her for that or for the opportunity for it.

You and I may say, out of our preconceptions, "Why, she won't take advantage of those opportunities." I wonder how we know. We have never tried it. We have never offered anything efficient. We have offered imitations and substitutes, but never the real thing. As a matter of fact, it would be a great deal more profitable for us to set ourselves to the task of creating ideals for this sort of thing, and we know that it doesn't take long to make education fashionable. Why are so many girls studying Latin and algebra at the present time, twenty per cent, almost, more than boys? The thing has become fashionable. They don't know there is any education or profit in it, but it has become the accepted thing. We could make anything else the accepted thing.

But what are some of the complications of this program? One of them is this, that if we are going to have vocational education in any period in the interests of effectiveness, in the interests of fair play and justice, too, let's make it one hundred per cent vocational education and not a diluted substitute, something denatured; something that always reminds me of that old adage, that rings in my ears: "Mother, may I go out to swim? Yes, my darling daughter. Hang your clothes on a hickory limb, but don't go near the water." We are trying to get a good deal of vocational education without going near the water. We want to learn to swim but we don't want to go near the water.

Now, we are not going to learn to swim without going near the water, and there are a great many of us today who are keeping as far away from the water as we dare without losing our jobs. If we are going to have vocational education, let us remember this, that the world of enterprise has split productive work into literally thousands of

channels, that efficiency in any one of those channels, and productive capacity, is a matter of training.

How many of these girls do we have to consider. Do you know that there are from five to six hundred a month passing in a stream right out of your own schools in Chicago—five to six hundred a month in Chicago? I have taken the trouble to deduce that from the school statistics of this city. They are going out in a steady procession, leaving the schools behind them absolutely and going into wage-earning callings.

What happens? We have given them no training for the vocational field. We may have given them a little touch of something, but the bulk of them, the modal quantities, have had no preparation. I am not talking about the ones that remain to seventeen or eighteen years of age. Those are the elite, but the others—we have given them very little. They have got to fit in or not fit in, with nobody to teach them, under the pressure of our modern industrial production, because industry isn't organized to educate, it is organized to produce. The men in charge of it aren't responsible for education. You and I, as consumers, are more responsible, probably.

These girls go into the industrial world. Many of them, to their credit, fit in well, but it isn't an economical situation even at its best. The whole trend of my argument leads up to this point. If we are going to offer vocational education, more and more we must offer it in what might be called short unit courses, specific, intensive, very purposeful, very much linked up with the occupational field, and of course, for many years to come, all that we can do is to offer these openings. We shall not compel people to choose this, that or the other. The time may come when in a large city offering a great variety of opportunities for vocational education for girls, we shall say to a certain girl who chooses or elects none of these offered openings, "Well, you have chosen none of all of these chances you have had. You must go in here." But when that time comes, which will be a good many years hence, we shall find that ninety per cent of our girls, at any rate, will easily elect the chances for vocational training that are presented to them.

At the present time, you and I can't talk about vocational education for the wage-earning callings of girls except in terms of just two or three occupations below the levels of the professions. Teaching, of course, and nursing, I rank as the professions, and there we deal with people who don't enter upon the slow training until they have practically reached maturity. The next stage below that, the great profitable one, is stenography, and there we encounter a certain selection

and maturity also, and of course, it requires a considerable period of training.

But below that, we do practically nothing today. We are beginning to talk a little about training girls for the salesgirl's position. We do nothing else except in those two historic occupations of dressmaking and millinery, both of which are dying trades and are disappearing, and both of which are in many cities almost non-existent. And yet, in the face of all this, we don't raise our eyes often enough to see that girls are going in a perfect army into work. They are doing ordinary salesmanship now and ten thousand other things, and I suppose within a few years we shall have them manufacturing shells and cannons, in imitation of England, because they can do it. They make very good machine-tenders, and the bulk of the world's work is being done by machine-tenders, from the man who sits on a cultivator on the farm to the weaver of cloth in a mill in Massachusettes, who is controlling beside twelve thousand dollars worth of machinery.

What is the use of our talking about handcraft production? It is dead. It is dying, at least, and the bulk of the world's work is being done by machinery, that work which produces exchangeable goods in quantities, and quality, too, if you please. Many of the lines of this highest and most complicated machine production today in steel and iron and brass and fabrics and leather are so much finer than handcraft was ever able to produce that they don't stand in comparison at all. The world's work is being done in that way, from the man who, on a locomotive, pulls a train weighing perhaps a thousand tons, carrying precious freightage, simply pulling a few levers, to the girl back in those weaving mills, operating machinery worth twelve thousand dollars.

And yet you and I, as old-fashioned pedagogs, talk contemptuously of machine-tending. Why ladies and gentlemen, the work of the world is being done by the machine-tender, and it is the most modern economic order, and what is the use of our sticking our heads in the sand like ostriches and refusing to face the facts. There is such a thing ahead of us as a diversified program of vocational training, where one month given to the girl at the proper stage of her life, intensive, eight hours a day practically, correctly, will save that girl years of misery in her later work—save her health, her nerves, her morals, and yet you and I today are refusing to face that kind of a fact.

We want thousands of forms of short units, specific, eight-hour-a-day vocational training. I hear people say that no program, devoid of elements of liberal education, will succeed. Why should we try all of the time to smuggle that in? Why can't we give our people the oppor-

runity to have this training for two months, or one month, rightly adjusted and directed and made concrete, at the right time? And yet we are talking today in terms of vocational courses of two or three or four years in length; and then we have this vague notion that you can start out away back at the beginning of things and you can fit the person for any or all contingencies that may come along later in life, a scheme absolutely contrary to the social order.

We are talking today as though that pitiful—from the vocational point of view, not from the liberal point of view—that pitiful amount of household arts that we are able to give the girls in regular schools would fit them in the distant future for home-making, as though little girls, not yet with any motives ripe, could take work. Why do we assume that we have got to close the chapter and bang the leaves of the book together in closing all their school education before we can let these people go?

Why, the education of tomorrow is going to be a system so organized that people will be coming back constantly. I spoke of juvenile occupations. Give this little girl who is trying to carry her burden of the family's support, give her a start of one month, two months, three months, to fit for that occupation out there that you know is an occupation, that you know pays a wage, that you know is always demanding service fit for it.

You say that you can't see how we can fit her for it. That is only our ignorance. Give the girl three months of training for that. Make it clear to that girl, when she has passed her juvenile period, that she can come back and we will give her three months of training in order to prepare her for a higher level; and then she can continue by evening or continuation or extension courses, or perhaps for a solid period in a dull season—she can come back later on and get more equipment, until finally we come to that last great opportunity that we will offer, either just prior to her marriage or after it, when we can say to the girl, out of our social work, "The standard of the right kind of a woman home-maker is thus and so. You are about to enter upon the work and here is what we can offer you." Make it definite, practical, positive; adjust it to her conditions. We can do that.

Now, don't misunderstand me on this point. I want to see our schools offer home-making training on a home-making basis also to girls of fourteen to sixteen, for example, and I hope that we shall develop some of that through the operation of the Smith-Hughes Bill, because there will be a certain proportion of girls who will want to equip at that age themselves. Some of these girls, for instance, will be the girls in artisan's families, where there is only one girl in the

family, and the artisan himself in the family will be equal to the task of keeping the girl at home. Some of these girls will be in wealthier families, and so we shall find a certain small per cent of them, ten or twenty per cent; but don't let us assume that the eighty per cent is there. It is too early; it isn't time, and remember that there isn't any effective vocational education without a strong co-operative motive on the part of the learner. Then there will be many young women who, having finished their general education in the high school, or two years of it, will turn to the home-making school. Now, that home-making school, again, must be positive, direct, concentrated. No, two or three hours a day is going to do anything but waste the public's money.

I have spoken of short course vocational training, but that is by no means the end of the story. In fact, for many occupations, I am sure that just over the way tomorrow we shall develop a system of part time education which will be more effective than any long, all-day school. In fact, I incline strongly to the view that generally speaking, perhaps our most effective programs of vocational education will be realized by having the learner take a short course, perhaps a month or something of the sort, in an all-day school, and then be led in, or let into the industry, the productive work, on a part time basis; and remember, of course, that we can get all the legislation we want to realize this if we know what we want.

This part time plan was originally had in the Fitchburg scheme, where the boys, rather mature and perhaps too late, because the requirements were for one year high school education, as preliminary, had a week in the shop and a week in the school. Where the knowledge that a vocational school gives can couple up with the practice of the shop, that makes a most effective combination, and I am rather inclined to believe that in a great many fields there are some opportunities opening for that.

There are places where girls are being trained for salesmanship on this basis. The girl goes to the department store, works for a period, Mondays and Saturdays, and then goes back to the school and studies those things that intellectually, theoretically, give her strength in the vocation. All along the line, I think, that is going to be increasingly possible. I want to see our business school so develop that, even in the training of stenographers, after the stenographer makes her first tentative essay into employment, she will still have a period during which she can come back to the school by some arrangement and perfect herself, because after all, a great deal of the so-called training of stenography that we give in this country is very far from being one hundred per cent stenographic training. As a matter of fact, many and many

a girl suffers long into her older years because she has never really gotten her trade properly.

When it comes to home-making, the second of the dual occupations which a girl must enter, I don't think that many of us think of the maintenance of a home as a wage-earning occupation. We are talking about the modal types now, where a young woman is gradually to rear three or four or five children and keep them up to American standards of living. That is what the boys in the street would call "some job," and I don't see that any of us today are in a position to dispute the point that this woman will have to give her whole time to that job if the American standards of living are to be kept up; consequently we will assume that the wife will not have to be a wage-earner. We shall have such cases, but I hope that more and more we shall take care of them as deserving charity cases by widows' pensions or something of that kind, because among the wage-earning wives we find an extraordinarily high death rate of infants; so let us assume that this woman is going to make her home and make that her job and is going to come to it with an increasing sense of the needs of the situation.

Where are we going to train her and how? Well, as far as the method is concerned, I know of no field today in which the proper development of the part time system of education is going to offer a larger return. We have been trying to equip laboratories or shops. In my estimation, we shall soon discontinue all of that. We shall perhaps have some sort of a material equipment in our schools to give different standards from what the home imposes, but of course, a great deal of our home-making education, so-called, today is really pitched on a pretty high scale and some of the people responsible for it are going to have a pretty hard charge to face in the near future, that they are raising the standards of living of these girls to a point where anything like a normal production of a normal family becomes an impossibility; so we must be careful, to keep within the practical available standards of life.

My conviction is growing stronger all the time that when the girl is ready, from sixteen to twenty or from twenty-two to twenty-four, when the girl is ready for this home-making education, a part time system in which the girl would come for half of the day to the school and the other half at work in her own home, under the supervision of the teacher—I believe that will produce nearer one hundred per cent of return for your investment than anything else.

I think it is going to prove an absolutely prohibitive as well as pedagogically unsound plan to try to equip laboratories in trying to

organize agricultural schools in Massachusettes that the really profitable thing to do was to use the boy's own home farm for all this practice work, that the school should be a gathering place, but that all the practice work in agriculture should be done on the farm; and let us remember that most of the work of these girls, from fifty to seventy-five per cent, will be practice that should be done in the home.

In case of this young woman, let her start on that basis and let her build on it. You may say that that will prove more expensive for the type of work we can get. It is true that the number of pupils per teacher must be kept down, probably about fifteen per teacher; but whether it be three months or six months, we can achieve so much in that period and then we can take another installment, so that I think that society can attend to that problem without any extraordinary expense.

Now ladies and gentlemen, I have covered a great deal of ground in a way. I am afraid that I haven't made many of my points clear; but I have the feeling that in a sense, most of us—I certainly include myself in that—have been building castles in Spain in talking about vocational education, that we really have not yet faced the problem of building castles on the earth and digging our foundation visions of what we would like to do, and we have been thinking in terms of exceptional classes of children, and inevitably we have thought in terms of the brightest and most capable. The social workers have seen the other side, where the deficiencies of our system is most apparent, and some of them have said, "How easy it is to let the incompetent and the ne'er-do-wells drop by the way and forget them. It is so easy to forget them."

Now, I think, dealing in terms statistical and facts as they are and crowds as they are and numbers as they are, with the passage of the Smith-Hughes Bill and with the momentum of interest that is going to be set in motion as the result of that, we have all sorts of opportunities to come back to the public and say, "We know now what effective vocational education is. We have our plans and we are prepared to put them into effect."

EFFICIENCY IN THE HOME

ABBEE MARLATT

Professor of Household Economics
University of Wisconsin

MISS MARLATT: Madam Chairman, Members of the Vocational Convention:

I feel a little bit like the man whose play was refused but whose thunder was taken. (Laughter.) The subject that was assigned to me is, as you know, Efficiency in the Home. I concluded I would go back and catch my breath with some old diaries and I found this that I am going to read to you as the work of one girl for one day:

"Fixed gown for Prude. Mended mother's riding hood; spun a short thread. Worked on cheese basket; pleated and ironed. Read a sermon of Dalridge's. Spooled a piece. Milked the cows. Spun linen, did fifty knots. Made a broom of guinea wheat straw and spun thread. Set a red dye. Had two scholars from Mrs. Taylor's. Carded two pounds of wool and spun harness twine. Scoured pewter."

There is something to be said for such a day. At least, there was no monotony. The only monotonous thing about it was the variety. When you think of some of the recent studies of Josephine Goldmark "On the Border-line of Fatigue," you know that change is a very valuable thing in rest.

I have another from the Pennsylvania Packet of 1780. "Wanted—At A Seat—" "About half a day's journey from Philadelphia, a single woman of unsullied reputation and affable, cheerful, active and amiable disposition, cleanly, industrious, perfectly qualified to direct and manage the female concerns of country business, as raising small stock, dairying, marketing, carding, spinning, knitting, sewing, preserving, and so forth. Such a person will be treated with respect and esteem and met with every encouragement due to such a character."

Unfortunately, I have no record of the sequel, but on January 15, 1917, I got this: "If the housewives of Duluth have any maids by dinner time tonight they will have to recognize the new Housemaids' Union, and change their attitude radically. That is flat. The maids say so. They said it in writing, too, when they presented their demands today. The one hundred charter members of this, the first domestics' union organized east of the Missouri river, today, demanded twenty to twenty-five dollars a month for families of two, twenty-five

to thirty dollars for families of three or more. They demand a nine hour working day, one day off a week, and time and a half for over time. They want good food and well lighted and ventilated rooms."

Nothing said about any of the demands in Duluth in the article stating what was "Wanted at a seat about half a day's journey from Philadelphia. One hundred thirty years makes a difference in our point of view.

I am quite sure that Dr. Snedden, in his very able address, forgot when he was a woman or perhaps he hasn't reached that point of evolution yet. (Laughter). It is very difficult for me to talk in language that applies to man's vocational education. I very seldom am reckless enough to do it; but to wait until we are twenty-four or twenty-five years of age to teach us the details of efficiency in home making, is to wait until we have reached the age of reason when we know that if we have to go through all of that, we will keep on with the occupation we are in. (Laughter.)

You and I know that the very small girl in the family wants to do exactly what her mother is doing and that is the time to teach her the control of her muscles efficiently. If we are going to really go back to this condition where we can teach the girl to do her work in terms of sub-conscious control of the muscles, we must not wait until twenty years of age. We have got to do it early, if we have to do it before the school period begins. I am not sure but what we begin our school work too early, that if we could have more of these teachers who went around from home to home and helped a mother to teach the girl in these years before she went to school, we would get an extraordinary amount of efficiency, but I am not advocating that as a method yet.

I feel that there is a great deal to be said along the line of the cultural value of our home economic courses or for domestic science and domestic art courses, as we call it farther down in our public school education. I agree perfectly with Dr. Snedden that the type of education gives a point of view and a very valuable point of view. If we want to do intensive teaching work we ought to take the girl from six to eight hours a day and teach her to cook so that her technique is more nearly perfect at an age when she likes technique. To wait until she gets to the period of college life, for even that very small minority who go to college is to wait beyond the point where perfect control may be attained. But, if it hasn't been reached at that time, we have at least got to show her how difficult it is to acquire, and that is a point of view.

Now, when we come to talk about ideals as to efficiency in home making, it depends very largely upon the inheritance of the girl. She

is limited by the standards of the nationality from which she comes, That limitation may be good or bad, according to your point of view, but she goes into her home with the ideals that she received in those very early formative years.

What I believe we should have, and the type of education that I think we must have, is training for motherhood all along the line because it is in those first six to eight years that we fix the standard in both boy and girl.

of the man in it. You have got to educate on both sides and the

Your efficient home is either made or handicapped by the attitude mother is usually on the job from "twenty-four to thirty-six hours" every day. She isn't paid time and a half for over time but she does it. Fortunately for her, age long inheritance as well as nurture has formed her so that she is willing to do it if she is taken early enough. (Laughter.) The difficulty comes from the fact that her education has not been broad enough so that she realizes that the demands of convention and the demand of fashion are to be met if she can, but to be ignored absolutely if it becomes impossible, that those are side issues in the main thing, the main thing being to meet the needs of the family so that they may become citizens of which a nation is proud.

Now, how shall she do that? If she is going to spend all of her time—and in our rural education problem in this country, the United States has given us statistics which say that about one per cent of the rural homes have house workers—then she must be able to judge wisely as to what to omit. It is largely a question of training in judgment. Today so much of the material can be bought ready to eat and ready to wear that it becomes a question of education in judgment, education in expenditure of time and as to the things to which that time shall be devoted.

I believe that we can train a girl to be an understanding user of physical laws as they are applied to this very complex machine which we call the house. Even the poorest house is so infinitely more complex than the castles of early England, that if we took one of those people and put her into the house today, despite a quotation from a friend of mine, she would be utterly nonplussed with what to do with the plumbing system, the electric connections, and all the other types of apparatus. She would not do what a very noted Syrian in this country said about the farmers in Syria; that if the men in the time of Christ came back to Syria, they could go into the fields and go on with the work exactly as if nothing had happened in the two thousand years between.

Reincarnated woman could not do that today. We have got a

complex machine at best and we must learn to use it, and I know of nothing in the way of machinery that requires more detailed practice than running this machine. We require a boy to be at least beyond sixteen in our state, and to have even then somebody older with him, before he is allowed to run an automobile, but even he isn't allowed to run an automobile until he has learned how. In this country we need to recognize that the machinery of a home is a very complicated thing and we need to train for efficiency in running it. I believe talking about it does some good, it makes us think, but the thing that is crucial is running it.

Now, in England at one time they conceived the idea that they would train the girl by letting her run the janitor's home. They stopped it, I suspect very largely because they couldn't get janitors.

Then they introduced the apartment in the school and let the girl do her experimenting there. We are doing that to some extent in this country. I believe the housekeeping centers that we find in some of our large cities are extremely valuable because they are modeled as nearly as possible on the amount of money that that type of girl can afford to put into running a home. It means that they are taught the efficient management of a small machine. The same type of business management that they are trained in in any other field will make them efficient in their organization, but it will not give them technique, and I hold very strongly that the girl who has tried out for an intensive period her own home, if she can get it, as suggested by Dr. Snedden, some one else's home if she can borrow it, or the school home if there is one provided, if she has done it for one week she will never be afraid of it seriously again. She has met most of the problems and finds that she is capable in a way of swinging it.

Now, that kind of work is being done far down in the grades so that we reach the mass of the girls who can go into these juvenile trades, but has the girl got in her sub-consciousness, a standard so when she comes into her own, she meets that standard as nearly as possible.

I know that Vienna has had for quite a long number of years what she calls "bride schools." There was a notice the other day—I have no further report of it—of a mothers' school in one of our California towns. We have the mothers' clinics in almost every well organized city, so that the mothers do have an opportunity for this advanced training in the care of children; but the small child can be taught the proper care of the child with its mother, and in some of these homes that I know best, the older child is allowed with the help of the mother,

to bathe and dress the child, so that the technique of it comes in when the child is free enough mentally to acquire technique.

Judgement is a matter of years and will come in the course of years. That we can allow to take care of itself, but we must teach this girl a pretty thorough knowledge of the laws of sanitation, not from the sense of teaching fears, but teaching what to do rather than what not to do, and I believe again there it is a question of teaching it so that it becomes sub-conscious. Most of our laws of good hygiene are fundamental laws of good manners, and if we can teach that way down in our grades, we have at least the basis for eliminating a great deal of disease.

When we come to the laws of economics, I believe again the house wife must have a working knowledge of this. It comes, through spending earned income from the smallest years onward. The child who is paid a penny a week is learning how to spend its own. The money that comes easily goes easily and no matter how poor the family or how wealthy the family, that child should be trained in economics if she is going to be an efficient home maker.

The amount of money that is spent needlessly by girls who do not understand, was brought to my attention very forcibly in a story that was told to me the other day of a young woman who had always enjoyed a home where the income is practically unlimited. She has a fair income of her own in her own right, but she had never bought anything that could be called purchasing for a home. She married, and she told her sister who was older and had been married for some years, "Do you know how much spring chicken costs, and I have been eating it recklessly all my life?"

The trouble with our homes throughout the country is that the great mass of them—the modal home—has, says Scott Nearing, from six to seven hundred dollars annual income. The great mass doesn't even have that, and yet that woman has to do the work of a larger income on that smaller amount.

I am not so sure about the accuracy of the conclusions in regard to death of infants of the women who work. I have been watching with a great deal of interest for quite a number of years and I know that data collected in Fall River shows that infant mortality is higher among the women who stay at home and do all of the labor of the house, including the washing and lifting of buckets of water and carrying of tubs and that sort of thing, which the woman has done automatically for years, and which seems much more deadly than the textile work, or than the transportation trades, much more deadly in terms of vital statistics. Hunt up your government records on that subject

and see what is said. Our rural statistics from this middle western country show that the death rate in the first month of life is highest in our rural sections. If the baby is able to pass the dead line of infancy, which is the first month, then the country is a wonderful place to develop.

Until we can teach the man as well as the woman what stands for efficiency in the home, we are going to find the woman expected to do a lot of these beast of burden trades—pardon me, Dr. Snedden—beast of burden occupations that make for loss of human life, not only for the woman herself but for the infant.

These are the things we must teach if we are going to teach efficiency in the home. It isn't a question of training the woman alone. [I do talk, you see, occasionally on the side lines on the training of the men.]

The boy who is not taught in these very early years that the mother is the thing to be saved at all points—hasn't been taught correctly. It is not a question of cultural value, it is a question of the spiritual value of that home that is at stake.

The girl must know as well as the boy, the fundamental laws of nutrition if this home is going to be efficient. The man that demands beef or mutton or pork three times a day and earns but six hundred dollars a year is demanding that which he cannot receive except at the sacrifice of other members of the household.

I wish that Dr. Snedden had made his point very much more emphatic on the occupation. One of the most wonderful occupations is that unpaid occupation, rich in spiritual value, where the woman takes raw material, purchased with the six or seven hundred dollars a year that the man earns—and makes it into value that corresponds to twelve hundred dollars or more and brings up a family that the state values in workmen's compensation from four to five thousand dollars each.

That is her productive occupation, and if we are going to train the girl for her productive occupation we must begin early, before she realizes the length of time it takes to complete that particular occupation; for the moment she reaches middle life, she comes in again as "professor emeritus" under the name of grandmother. She has to help out this woman who hasn't any other help except her two hands and what her husband can help her on the side, after he has completed his eight hour day while she is still going on with her sixteen.

If neither of them knows the law of nutrition then we get infant mortality rates soaring as it is in city life, where the girl goes to work so early that she doesn't even have a chance to know how the children

of the future should be fed, and the infant mortality in our urban population beyond the first month is very high.

Take countries like New Zealand, where they have efficient education along the line of human nutrition and we find they have a death rate among infants that is extremely low. We cannot begin to touch it in other countries.

The intelligent needs of the family: I feel that there is much to be said on this side of the subject. Who is going to provide it? If this girl has to go to work early and the man has to go to work early, who is going to make this home efficient along the intellectual side? Is this purely a piece of machinery where children are ground out into the public school and into the church and then on into life? We get a perfectly vicious wheel of things, and we are tied to it. It is no wonder, that the rebellion becomes ripe, because in this endeavor to make us efficient we have forgotten spiritual things.

I believe with Dr. Snedden, that it is very difficult to mix cultural education with vocational training, but I do believe that the work that is done down in the grades is not so efficient as Dr. Snedden would lead us to believe. The child comes out with little or almost no love of literature. You talk with the boy and the girl, you talk with the young woman and the young man and they loathe all of these things. I remember a time when I was asked to teach one subject that I wasn't proficient in and I said I didn't know how to teach it, but the head of the department said she would help me. But when she told me how she read the rhyme of the Ancient Mariner to her class, I withdrew. I couldn't get up before a class, and say I "was the first that ever burst, into that silent sea." That emphasis was too much for me. We have got more nonsense in our teaching of reading and English literature than we can possibly live down. I wish that the child could learn to read with appreciation, but I do not believe this exaggerated type of emphasis of which I have given an illustration, will do the work. If we could only have this vocational education put into a few hours a day, and then some part of the day given over to something that I was going to say is more worth while—I am not sure but that it is—we would be infinitely better off. We are struggling so hard to produce things for which the price is going up; we struggle harder and the prices go a little higher and we struggle harder and the price goes a little higher. It is all a vicious circle. There is something wrong with the economic situation. I am not sure but that it is because we talk about it so much. I was quite interested to find that in New York City the price of a staple article that we all wear on our feet hasn't gone up anywhere near so much as it has in the town from which I

come. Our papers have been full of prices of shoes going up from four to twelve and sixteen dollars. They haven't gone up in New York—the same type of shoe. I think we talk too much about it, we suggest the idea that the price is going up and it goes.

I think to be an efficient manager of the home we must know when to keep quiet. We must know when to substitute. We must know when it is worth while to say to a man who is putting up the prices, "You are welcome to the article." The effort is to teach the small child a varied diet so that when it comes to substitution we won't be confronted with a round of "I prefer bread and potato and gravy, and butter and bread and potato and gravy." You can't work many changes on that. The great trouble with our education is not that we are teaching them beyond what we can afford; but we are not giving them the breadth of view or knowledge of values. It is a question of training in judgment, and the girl should have it. The man should have it. I think we should teach a higher standard in choice of amusements and I do not know of anything that will teach it except that we come right in and help. I believe a great deal of our vocational education might be clarified and simplified, if we taught some things that were along the line of satisfactory amusements. We as a people are earning more money, we are spending it in the picture shows, with the result that some of the managers of picture shows are earning more than the president of the United States. And yet we wonder at the high cost of living. The picture show proposition may be very good; it may be very bad, but it is a habit, and to spend five cents a day per individual in the family means that the Associated Charities must come to the rescue. I remember a story that was told me about one woman whom the Associated Charities were helping and they found that she was spending at least thirty-five cents a week on picture shows. It may have made for intellectual advancement, but there are less expensive methods and, I think, more effective.

The spiritual values in the home can be experienced but it is extremely difficult to teach them and I believe that if we could control a certain type of "practice cottage" work in some of our schools, we could establish in the mind of the girl an ideal. I see the handicap in that in perhaps most of the schools it would be one sided training, but even learning to live with another woman is a liberal experience. (Laughter.) It helps and at least they have learned how to go around instead of through. (Laughter.) And in such cottage practice, I believe lies the hope of the future. We have too little practical knowledge of problems in home making. Our divorce courts show it. The girl needs to be trained in how to make the most of what she has to work with.

She had better make her mistakes in a practice cottage or in a practice apartment.

Even if she practices only five or six days intensively she does not have to start in absolutely without any back ground of knowledge of how far her husband's income or wage, whatever term you use, will go. If she has lived on a limited income and has been given the money with which to buy, she knows that she has got to know substitutes in foods if she is going to give that family a satisfactory diet. She knows that women are particular and that food must be attractive. Not only in taste but appearance. Unfortunately, as I say, we can't very easily adopt a man into such a family and let him work it out with them. The only thing that they can do is to try to imagine what their fathers or their brothers would like and see if they can provide it. There again, you see, you get the limitation of their previous career on such an experiment.

As far as educational methods are concerned I believe with Dr. Snedden, that most of the domestic arts and domestic sciences in the grades and high schools and most of the home economic courses in the universities, are of distinct cultural value in that they give that wide point of view on life in general that makes such students a very potent force in the world, but if we are going to reach the rank and file of the girl who makes the home of the future, we must start early and keep at it.

I should like to see Dr. Snedden's method used and I dislike to be skeptical but knowing women, as I have known them, and knowing girls as I have known them—I believe the time to teach home making is when the girl loves to play with dolls, before she reaches the adolescent period when she becomes self conscious: If this is done you have put in a background that will make them sane enough and sensible enough to take advanced courses in motherhood when they need them.

WORK FOR WOMEN

MISS ISABELLE BEVIER

Head of Home Economics Department, University of Illinois

Madam Chairman, Members of the Conference: I find myself in an exceedingly embarrassing situation. I am no orator, as Dr. Snedden is. I have not been accustomed "to think in modal quantities." I hate statistics; and yet, having listened and having looked into the faces of these people, I wonder if, after all, the capacity in which I have served the State of Illinois for eighteen years will not serve me in this instance. I came here when home economics was not known and was not respectable, even, and for the first ten years of my life in the State of Illinois, I, without any effort on my part at all, was known as an ignorant but well-intentioned woman. I am to speak in that capacity to you now. (Laughter.)

It will take only a few minutes for me to give my philosophy of education, which is not going to disturb Dr. Snedden's at all and which will agree with Miss Marlatt's and have her support. I am sure of one thing, that both she and I will feel that our years of effort are a good deal wasted if, somewhere and somehow, there are not some women who can run homes better because of their home economics training, even if by the time they are fourteen years old or sixteen years old, they have not been taught every process that goes on in the home, from washing the baby to milking the cow or running the electric machines. I do believe that the Lord intended some things to be learned by women and men at first hand; and I feel that we may feel for these people who must leave school at ten or twelve, that they are educated, and care not by that time, and then, as a good home economics woman, I am going to say that the home economics that they have is the one thing that does save them and is often the one educational influence that means something to them, because it is vital to their lives. It is much more understandable to them than a good deal of their English or their arithmetic either one, and it is worth just as much, (applause) every bit, and more, and it is just as good training. You will find a good many stupid girls, that you would call stupid, and stupid boys, that haven't done anything and didn't get the meaning even of what the figures meant until they were applied to their home economics or their manual training.

So I differ decidedly in this one point, that elementary home eco-

nomics doesn't amount to much as a liberal education. My definition of education is that it enables us to see things in their relations, and that is the reason that I want a little vocational education to go along with the liberal; and if you are going to send them out to tend a machine after they are fourteen years old and you can teach them to tend that machine in a month, then just give them all the liberal education you can beforehand. (Applause).

Now, I have that one point; then this a totally different thing. It doesn't have anything to do with it, and I never have said it in a public audience before, though I have thought it. I am thoroughly co-educational in my sentiments, but I don't quite understand, when you get ready to talk about vocational education for women, that it is so terribly different from what it is for men. Don't the men have to be educated dually if the women have to be educated dually? I don't understand this dual education all along the line. It seems to teach that there are two jobs for women and one job for men. I haven't found it that way. I am thoroughly co-educational in my sentiments, but I have been in the habit of going alone and I don't have to have two kinds of schools to have individuals taught.

I am going to give just my plan, coming from this ignorant and well-intentioned woman that comes from the country. I am going to tell what I think the business of a school in a town of fifteen thousand is. I live in that kind of town and so I have certain ideas about it. This kind of a town has a beautiful new school building. If a school for home-making was opened for girls that were twelve years old, for girls that were sixteen years old, for girls that were twenty-years old, none would attend. Why? Because they don't earn their living that way. I think that a school ought to meet the needs—the public school that is taxed for the people and has the people's money—ought to meet the people's needs.

Now, the town in which I live is not a factory town and it does not have mills, so I am saved a lot of trouble, but we do have people, fifteen thousand of them, and we do have a number of young girls who are earning their living. They are not all in school. What do they do? One thing is to go into the dry goods store. They are telephone girls; they are in offices of one kind and another. There isn't any reason why this beautiful new school building shouldn't train them for salesmanship, shouldn't offer the course right along with other liberal courses.

I don't know who is going to say to them, "It is time for you to quit this and go into a vocation." How do you know but that they will be able to do a great deal better where they are? I suppose Dr. Snedden

knows all about this, (laughter) but there are so many" honorable points of ignorance" about vocational education that it would take me all night to tell about them, so I am just going to tell you one simple plan.

We have a business college and we have people there who understand salesmanship in the stores, and they could have this at night, and if it is only going to take the pupils a month to learn, it is a simple matter and then they could go out, but it would not take two complete outfits to do it. It seems to me the opportunity of the public school system is to meet the needs of its pupils by providing training. I don't know who society it; I don't know who is going to provide this double system. We have difficulty enough with our taxes to get our new high school building paid for, and I don't understand the dual method at all.

I beg your pardon for my ignorance. I have done as well as I could.

FIRST STEPS IN AGRICULTURAL EDUCATION

BERT BALL

Secretary, Crop Improvement Committee Council of Grain Exchanges, Chicago

The old foggy who first said "children should be seen and not heard," has for the past several generations done much to discourage the inquiring mind and out of that doctrine has grown our present school system which considers that our children are bottles into which cold facts are to be poured and corked up. "Everything going in and nothing coming out," to paraphrase the common slang, which is against nature.

He is denied the right of expressing himself and is made to sit in his seat during the greater part of the day looking at something which does not interest him and even denied the right to whisper to his chum.

This must all be changed. Some inspired teachers have already blazed the way. The teaching of agriculture in the schools is exactly the same as teaching anything else, or should be. The children in the lowest grades should be encouraged to look about them. They will not need to be taught this because it is natural. They should be encouraged to use their eyes and their pencil, to draw common forms, to learn the shape of things and their relative sizes. Their reading, writing and arithmetic should begin its correlation from the start with these common objects. It is impossible to cover this subject exhaustively in a discussion of this kind. Let us boil it down to this general principle. Teach the young idea to shoot in natural directions, just as the young plant learns to shoot and takes root.

Here he gets his first idea of geography. Lucky that pupil who has shrubs, flowers, trees, a running brook or something which will endear the place to his memory.

Next comes the school district. In nearly every rural community there are about as many children in the school as there are farmers in the district. It is impossible to begin agriculture without knowing first something about the agricultural conditions surrounding the school. Growing rice, dates, and cocoanuts would have little effect on the education of a corn belt farmer boy. He should be encouraged to get his education in the terms of the life about him and the best way is to send him out to gather information, to ask questions and to write down the answers; to classify what he has learned and compare it with

other conditions ; to correlate it into his school work : geography, reading, writing and arithmetic, all the time learning agriculture.

What can the children do which is simple and efficient? They can bring samples of all the seeds to be sown upon their home farms, learn to identify varieties, learn to know and how to combat the dangerous weed seeds, learn to recognize smut and grain diseases and to treat these diseases with formaldehyde. They can select a farmer-partner, father or neighbor, for whom to test seeds in the Rag-Doll and blotting paper testers, all of which is ideal school work and teaches a practical agriculture which could never be learned by memorizing from books.

The same principle applies to farm animals, poultry and country roads. It is the very foundation of farm management.

The district school should be the neighborhood club. It should have an auditorium, a swimming pool, a gymnasium, a stage, a piano, a phonograph, sewing machines, a well-equipped kitchen, a place to eat, a place to dance, a place to sing. Elections should be held there. It should be the center of community life and it will be when we get our eyes open.

TO WHAT EXTENT CAN THE SCHOOLS PROVIDE AGRICULTURAL EDUCATION?

MATTHEW P. ADAMS

Director Mooseheart Vocational Institute, Mooseheart, Illinois.

Ladies and Gentlemen: I want to say a few words at the beginning as to just what Mooseheart is. Mooseheart is a vocational school for the dependent orphans of the Loyal Order of Moose, that is, when a member of this fraternal order dies, his children have an opportunity to go to Mooseheart. We have a large farm of about 1015 acres situated on the Fox River. It is about three and one-half miles long and a mile wide. We have many cows, chickens, pigs and things of that sort.

We have mapped out a plan of agricultural education that I think you would be interested in. It would be just as applicable to a city as to a little town such as we have.

You perhaps know that during the last three generations, people have been moving from the country to the city. In fact, three generations ago, about sixty-three per cent of the people were in the country; two generations ago, fifty-nine per cent, and this last generation, only fifty-four per cent are in the country. It seems to me that the boys and girls in the city have been neglected so far as agricultural work goes, but it is only going to be a few years until the boys and girls will have that opportunity.

Now, there is nothing to prevent any city, even a city as large as Chicago, having a farm school somewhat similar to the one we have. I want to tell you what we are trying to do there. We are starting with the boys and girls who are eleven or twelve years old, and "routing" them through the farm. For instance, they go out and do some practice work with the chickens and have what they call a "chicken class," where they learn the "bad side" of chickens. This is outside of the regular school day, which is four hours long. We have school all the year round, and the boys and girls don't seem to be very distressed over it. They have a week's vacation at Christmas, a week at Easter and about two weeks in the summer.

In the prevocational work, which is for the boys and girls from twelve to fifteen years of age, we allow about two years of agricultural work and one year of industrial work. I can well understand that in the city it would probably be necessary to have one year of agricultural work and two years of industrial work.

Now, let us see what happens to the boys. We are going to "route" the girls the same way. The boys start with the hens. We discovered that if we started them with the cows, they didn't want to go to the hens afterwards, because they thought the hens are something that girls or women ought to look after. They have, say, in the morning, four hours in our academic school, and I want to mention the fact right here, that we are correlating the school work with the vocational work. They have four hours in the afternoon with the hens; two hours and a half of that is in groups in the "hen school." I use the "hen school," "hog school," "cow school," and "horse school" in order that you may know that there is book work along with the practical work.

A boy, for instance, works in the hen-coop. He collects the eggs, he notices the different sheets to find out how each individual hen is getting along. He learns that if the hen isn't delivering the goods, she had better be used for fricassee on the next Sunday. In the little hen schoolroom they have such experiments as are applicable to hens, some such as you have seen this morning, except that they haven't been able to present them in such a fine way. They learn, for instance, that some hens have as their object in life the laying of eggs and that other hens are raised for their flesh. They learn to identify the different hens. They learn to watch the hens and know how they are laying.

It is the same when they go to the hog school, because they spend three months in these different units, half a day at a time. They learn that certain hogs are for producing fat, some are for producing ham, or bacon. They learn how to identify the different types of hogs. In the arithmetic in this hog school and also in our regular academic work, they learn how much we are buying a boar for, or how much we got for the last hogs we sold, and things of that sort.

This is all pre-vocational work with boys from twelve to fifteen. They have the regular manual work connected with these different departments, the cows, the hogs and the horses and hens and crops and greenhouse and nursery. After they have started with the hens, they may jump to any one of these subjects, but they all have to go through every one of them. It has been interesting to notice, when we change, that it is the hardest thing in the world to pry them loose from the place where they have been. For the first week they are with the cows, if they have been with the hogs, they are dissatisfied, but finally like the work with the cows just as they did with the hogs, and in three months they don't want to leave them.

After they have been through these nine different branches of the farm, they are then routed through the industrial department. They

go through the carpenter shop for three months, the paint shop, the cement shop, the machine shop, the garage, and so on.

Boys that will want later on to specialize in farm work, and we have probably about fifteen or eighteen that are going to take up farming as their lifework, have to have special training or preparation, so that sometimes they stay longer in these different prevocational classes. For instance, it is absolutely necessary for a boy who is getting into farm work to know something about cement and concrete. We have a small cement plant where the boys learn to make fence-posts, silos and things of that sort. It isn't an intricate and difficult matter. It is such a thing that all farmers ought to know, especially at the present time when concrete and cement are being used so much.

It is somewhat the same in the carpenter shop. The boys spend three months there. We give four hours daily to this work, two in the carpenter shop and two in drafting. The boys does his drafting, the thing he wants to build, and can take his blue print right into the carpenter shop and two in drafting. The boy does his drafting, the is to keep them separate.

The work of these boys, when they are in the carpenter shop, has to do with making hen-coops and things they would have to make on the farm. They also have to draw plans for a hog-barn and cow-barn, and finally for a model farmer's house. In the paint shop they learn to mix paints and the combination of colors.

They are getting, it seems to me, a love for agriculture and outdoor life that it would be impossible for them to get any other way. We have the agricultural department and the industrial department. The agricultural department, when we started threre years ago, developed very rapidly, of necessity. The industrial department developed very slowly. There has been a tendency on the part of almost every boy that is with us to want to go into the farm work, and I am wondering when we complete our industrial department, whether it will still hold true that most boys will want the farm life. In any event, after they have gone through this prevocational work, in case they do not want to go on with farming, they have had a practical education.

Now, on the academic side, while they spend a half-day in school, we are tying up that school work in every possible way with both the agricultural work and the industrial work. It gives a new point of view, I think. When you look at a school from that view-point, it means that your idea of English changes, your idea of arithmetic is different, and your idea of geography is completely changed. You don't teach the gulfs and the bays and the mountain peaks, etc., of

North America, but you study about what North America produces. You learn about transportation. You learn about organized labor. You learn about social service and things of that sort.

We have a course now that we are mapping out—two course for the high school boys. One is called business relationship and the other, social relationships. Those are a mixture of history, geography and civics. We have a free hand in that we don't have to follow any definite course of study.

Coming back to the agricultural side again, it seems to me it has been neglected to an enormous extent here in the central west. Out in the rural districts a great deal has been done with it, but in the suburbs of the city very little has been done. There are hundreds, thousands of greenhouses right around Chicago here, and I think if you should go to those greenhouses, you would find that the people that work in them have come from the country somewhere. Now there are probably thousands of people, thousands of boys and girls here in Chicago, that ought to have that training, that ought to go out to these greenhouses. They ought to have that chance.

In regard to the girls on the farm. I have been outlining a course for girls and indictating to my secretary, at the part where I mapped out the work in the cow-barn, I noticed a very distressed look on her face, when I dictated the fact that the girls should learn to milk the cows. She said she thought that was a poor idea, because if a girl on the farm ever learned to milk a cow, she would have to do all the milking. I don't think that necessarily follows. I think in our courses for girls, it is going to be a fine thing for these girls to learn how to harness a horse, milk a cow, keep bees, work in the greenhouse, and learn rose culture, for instance. We have two tremendous greenhouses, 320 feet long and forty feet wide. We have about 5,000 rose plants. Now it is possible for a girl to do work in this line. They are doing it at the present time. There are a great many women running small farms or specializing in the different branches of farm work, and a girl ought to know these things just as well as how to make her own dresses.

In working this out, there is something that we shall have to experiment on. It is perfectly impossible, as you who are familiar with farm work know, to take girls from twelve to eighteen and have them go as the boys do through these various divisions of the farm. This is because it is impossible in the case of a large farm, to get men who have the right point of view as far as the instruction of girls is concerned. I don't know whether it has been done elsewhere or not, but we are going to experiment with it. I am going to get one or two

women of a fine type, who have been through an agricultural school or college and probably in their girlhood lived on a farm, and then have them go with a group of ten or twelve girls, first, maybe with the hens, where they will spend three months, then to the cow-barn, the same teacher going along, and then maybe to the hog-barn. The other teacher will start with the greenhouses and then go to the nursery, etc., and so each of these teachers will have to teach three or four subjects; yet even if this is true, the amount of prevocational work that a teacher can do would be sufficient for the purpose..

There is a great deal, it seems to me, in having these children get what you might call the agricultural point of view, that is, to realize what a farm is. Most children, even if they live in the country, don't realize what you might call the business side of a farm. We are putting special stress on that, as I said before, keeping account of each hen, keeping account with each cow, and the children know what we pay for those things. They know what we get when we sell them. We are trying to tie up all of that agricultural work with the school work.

Only a few days ago, one of the boys came in and wanted some tarred paper. Living in the country as we do, the boys in the country hunt and then want to build shacks. This is a case where the drafting shop and the carpenter shop co-operate. The boys have to make little plans of the shacks they want to put up, and then they go to our waste pile for lumber and then build the little shack. Some of them are very crude.

I find that in training the vocational teachers, the standard they have of what the product should be is so high that it tends to discourage the boys. For instance, a high type of carpenter will not want to accept work that isn't just perfect, and some of the hardest work I have done has been to try to convince those men that if a boy has made a wheelbarrow or has made a shack and it is a little crude, it still ought to be accepted. The boy ought to be given a little praise for it, even, in order to encourage him, and not frowned on if his board isn't planed exactly straight.

For instance, a boy came in, wanted some tarred paper for a shack. I asked him how much, and he didn't know. I personally didn't know how many yards there were in a roll of tarred paper, so I sent him down to the shop to find out, and then to go to the shack and measure up and see how much he would need for his shack.

All around us, there are a thousand and one things that can be tied up with the class room work in that way, not only at Mooseheart, but in other schools.

Situated as we are there and having a special hog school, cow school and hen school, it isn't necessary to do this experimental work, such as you have seen here this morning, in the regular classroom, so that our regular academic work is not interfered with to any great extent. It is simply that the point of view in that work is somewhat changed. That is, it is surcharged with agriculture and with industry. That doesn't mean that the cultural side of the school suffers, because it doesn't.

For instance—I don't know whether you will agree with me or not, and I am not throwing a brick at the old idea we have in regard to school—but it seems to me that English and music and drawing should be taught more or less from a cultural standpoint. This is true not only of an agricultural school but also of any school. For instance, in regard to English, if you are studying some of Sir Walter Scott's books, it isn't so very necessary to know every small detail of his life. happened to him, and some of the things he wrote, but such a little. It is a necessary thing to know approximately when he lived and what bird's-eye view of his life ought not to occupy much time. More time should be given to what you call extensive reading, rather than intensive reading. I think it is possible to read Shakespeare and enjoy it. I never did, because I was unfortunate in having to go into the thing too intensively, so intensively that I lost the beauty of the whole thing.

I think the idea that these subjects can be taught from a cultural standpoint is the thing we ought to recognize in our agricultural as in our city schools. For instance, take music. In how many schools do elementary schools and high schools go out with a love for good music? we teach appreciation and love for music? How many children in the They learn to sing. Great emphasis is put on the fact that they must learn to sing by sight, and classes are graded on this basis. You have probably done the same thing yourself—graded classes on their ability to read by sight. You haven't graded classes on their appreciation of good music. And that is the only reason we are teaching music.

It is possible, I believe, to introduce this industrial and agricultural work into the different grades, and yet at the same time not lose the cultural side, for if agriculture is taught right, it is as cultural a subject, if I may use that term, as anything else.. There is an appreciation of life, appreciation of what the world means to us, appreciation of our place in the world that one gets from an agricultural education that one doesn't get from anything else.

I believe that every city ought to have a farm school. I know it has been done in some places. It was in Gary, Indiana, a number of years

ago, but they finally gave it up—I don't know why. It is almost true that even with the added burden of paying for agricultural teachers, a properly conducted farm school could be almost self-supporting. The only loss would probably be on the salaries of some of the agricultural teachers.

I realize, of course, that at Tuskegee and at Hampton there is a deficit every year of a good many thousand dollars, but that is because much that is not agricultural work, is charged to the farm, but if a separation were made, you would find that most of those schools are self-supporting. There is no reason, therefore, why such schools should be a burden to you. I do want to leave one last word with you. That is, this: There are probably in Chicago thousands of boys, and girls too, that would, if they had the opportunity, go into agricultural work. Now the door is absolutely closed to them because they happen to be here in Chicago or Boston or New York. They never can be farmers in spite of the fact that that is the thing in life that they should probably do.

It ought not to be so. The farm workers ought not to be recruited entirely from farms. We ought to be organized on a more efficient basis, and I think the time is coming when these boys and girls in the cities will have an opportunity to get out onto the farms and into farm life.

There are two types of peoples in the world. There is what you call the city type and the country type. You, every one of you, are one, or the other of those two types. It is a rare person that enjoys the city and country equally. In these large cities you will find many people of the country type who never get out and never will get out, but simply be in the wrong place all their lives for lack of opportunity; and I hope that the time will come, and come quickly, when all boys and girls will have an opportunity to at least try out the thing, pre-vocationally, to find whether they would like it or not. There ought to be this opportunity for all of them. (Applause.)

THE CHAIRMAN: I think it would be a good idea, if anybody wishes to ask any questions, to ask them now, and I am sure that Mr. Adams will be glad to answer them.

QUESTION: You said that these boys and girls are from families of the Moose, a fraternal order. Are they kept there on the farm all the time and do you take care of them?

MR. ADAMS: I didn't enter that side of it because I presumed you were interested in agriculture alone. About five years ago the members of the Loyal Order of Moose decided that they ought to have an orphanage. It took them two years to find out where they wanted

to locate that. A committee traveled all over the country, and finally decided that the Fox River Valley here was the richest and finest place. They wanted to be near a large city—Chicago, and a small city—Aurora, so that the children might have a touch of life in both places.

This school is for boys and girls and we take them at all ages, from the time they are born, to fourteen and keep them until they are twenty, so you see, it is a very complex situation. We have the elementary school and high school and the agricultural and industrial work. We have to deal with all those problems that people are now thinking about in the educational and social field at the present time. We have one baby that is twenty-two days old. Sometimes we take their mothers, and in this case the woman came from South Bethlehem, Pennsylvania, and her husband died last May. She had no place to go. She had been sent to a city institution, and instead of that, the governors of Mooseheart sent for her to come, and the baby was born twenty-two days ago.

The reason we keep them till such a late age is because we are tied up, and rightly so, with organized labor. I don't know whether you know conditions or not through the Fox River Valley. It is a highly organized district. We have agreements which make it necessary for us to employ nothing but union labor. One of these agreements is that after these boys have gone through this pre-vocational sampling of both farm and industrial side they choose a subject that they want to specialize in. Let us suppose it is electricity. The boy is put in a class in which there is a union instructor, and they go around and do the electrical work on the buildings that we have constructed. We also have electrical laboratories that they are making. Usually, you know, there is one apprentice from every ten or fifteen electricians. We have, say, six or seven boys to one electrician. The union has allowed us that latitude.

They have also made this arrangement, that if we start the boys with them at fifteen and if we will allow them four years, when they get through, after they have been examined each year by a committee from the union, they will give the boys what is called a traveling ticket, that admits them to organized labor. They can take that ticket and go anywhere in the country they want to and make their connection with the local union.

Mooseheart is a National institution. Many organizations have state institutions with twenty or thirty children, but this is really international, because we have a boy from the Philippines. We have children from Alaska, some from Florida and from Texas and so on. That is, it is an international home. The ideal under which we are

running that thing is that we want, so far as possible to make it a home for the children. We put children of all ages together in the same cottage. The cottage mother or cottage father stays in that cottage and will stay there as long as they are employed at Mooseheart. That means that the relationship that grows up between these children and these people in charge is somewhat like that of children and parents. Living the outdoor life they do and getting the type of education they do, we have what we think is a mighty fine bunch of boys and girls. They come to us as they do to any institution, from the cities, for instance, and gradually get assimilated and straightened out.

Now, the governors have said, I think very wisely, that we want this to be one of the best institutions in the country. "Why should we duplicate other institutions? Why not have the orphan children of our members go to the city institutions and be done with it, if we are going to do that? We want a particular type of education for these boys and girls. We want them surrounded by certain environments." So they established this institution at Mooseheart. Together with it went this ideal, which I want to impress upon you, which I think is a wonderful thing. Having a free hand at Mooseheart, we want to try certain experiments to see how they will work out. One of the experiments is this agricultural work with the girls. One of the experiments is the type of government we have there. It isn't self-government, but what is called supervised self-government.

I might say a word in regard to that, because you who are interested in education might be interested in the type of government we have. All the boys and girls meet every day at five o'clock at what is called the assembly. There, different things are brought up. We bring up, for instance, anything for the good of Mooseheart, and some of them make some constructive suggestions. We bring up any complaints. We bring up the question of appreciation. That is a new thing we have started—anything that they have seen during the day that has made them happy or any nice thing that has happened to them, or they have seen anybody else do, they speak of.

Then comes what is called the black side. They have to report demerit marks. We have reorganized the thing to a sliding scale. The boy that swears is given from a half to four demerits. A boy that steals is given four, or a boy that plays hookey is given four. They report those at the assembly. When they accumulate five of them, they go on what is called the demerit line. That means that in their spare time they have to go around with one of the proctors, are sort of prisoners, and we find all the disagreeable and dirty tasks for them to do, so as to make their life as miserable as possible during these five

days. If a boy accumulates two demerits, he can work them off in this fashion. If he doesn't get any more demerits at all, the two demerits are automatically wiped out; so there is a constructive side to it. There is a constant tendency for these boys to wipe them off before they get on the demerit line.

They make their regulations in regard to the student behavior. My assistant is chairman of this assembly, and to a certain extent he does influence the vote. He doesn't argue unless he leaves his place and steps down into the assembly and has somebody take his place, but an adult who is chairman of any meeting unconsciously influences things. These boys and girls, too, when they come in and report their demerit marks, have the opportunity of appealing or protesting from that mark. For instance, if a school teacher gives a boy a half-demerit for whispering he has got a right, when he reports, to stand up and protest and appeal from this, and the teachers have to prove their case. The boy has witnesses and the teacher will call on various persons for witnesses, and they debate it and the whole assembly votes on the thing. Sometimes the demerit mark is wiped out, sometimes it isn't. There was only one in the last six months that I know of and which I thought was justified, which was wiped out.

Now the beauty of that thing is not the boys' standing up and defending themselves on their feet. That is a fine thing, but it is not that. Back of it all is this thing: Those boys and girls are weighing and balancing evidence. They see that there are two sides to a thing. Now, most of us poor mortals go through life and only see one side. The more narrow-minded we are, the more we see of that side and we never think of the other side. These boys are taught that there are two sides to everything, and they weigh and balance each side of everything. Sometimes the boy says frankly, "I do deserve some punishment, but I don't think I do deserve as much as you people want to give me."

It is that type of supervised self-government that we are experimenting with there. That would work out in an agricultural school or industrial or even with an ordinary grade school. While there is this main assembly, we find that the proctors and the matrons and even the agricultural teachers are holding little assemblies of their own. If there is a fuss in the hen school, the agricultural teacher starts up a little assembly there for ten or fifteen minutes, and he is controlled by just the same rules and regulations as this large assembly, and they thrash a thing out and find which boy is to blame and he has to report a new demerit mark in the assembly, and he doesn't dare protest it then, because many boys will get up and say they've investigated it.

THE FARM PAPER AS A FACTOR IN THE EDUCATION OF THE FARMER

FRANK B. WHITE,

Managing Director Agricultural Publishers Association

Mr. Chairman, Ladies and Gentlemen:

When I saw the array of talent listed on your program, I imagined I would find myself in rather an awkward position, something like a square peg in a round hole. I confess that I am somewhat confused. I have listened to the words of the able speakers who have preceded me, with interest. I find myself in very much the same predicament as the minister who was very popular in his community and was called upon for all sorts of services. In fact, as most ministers are, he was overworked. At the last minute and to fill a vacancy, he was called upon to preach a funeral sermon. He did not have time to familiarize himself with the case, or to find out anything about the deceased. He got along very nicely until he reached the point where it was necessary to be more specific and to say a few words of condolence. He did not know what the corpse was, male or female. He leaned over the pulpit and asked one of the mourners in an undertone, "Brother or Sister?" The answer came back, "No, cousin."

I don't know whether it is a brother, sister or cousin, that I am supposed to talk about on this occasion. My topic is "The Farm Paper as a Factor in the Education of the Farmer." That is a big topic and may be approached or dealt with in any one of several ways. We are dealing with the greatest business on earth, and the Farm Paper as an educational influence has its place in this great industry, and an important place it is, because we must remember that farmers, as a rule, are not book readers. They depend upon their periodicals—newspapers and magazines—for their educational advancement, and the Farm Paper to the farmer is first in importance and influence.

Garfield told us that "At the head of all the sciences and arts, at the head of civilization and progress, stands, not militarism, the science that kills, not commerce, the art that accumulates wealth, but agriculture, the mother of all industry and the maintainer of human life."

Viewing it from that standpoint, we must be interested in Agriculture; in fact, we are, whether we realize it or not. The bigness and importance of the industry demands treatment in a large way. That is

why we have Farm Papers representing approximately 14,000,000 circulation, covering this big land of ours, and that is why Farm Papers have become great, strong, good and influential in advertising and business; and, friends, the point at issue between your line of education and the Agricultural Press is not very different. We are all one people. Our interests are common.

I am sorry to see the tendencies of class distinction here and there, between the Country and the City. The line of demarcation should be eliminated. It is one big, national proposition, and I would have you know that you cannot go very far, exist very long, or accomplish very much in your activities, whatever they may be, without getting up against this Agricultural proposition good and hard. The farmer feeds the world, and he is entitled to the best of educational facilities.

Did you notice on your breakfast table this morning the things you ate, how closely they touch Agriculture? Perhaps you had your cereals, bread, butter, eggs, meat, sugar. Each one of them traces back to the soil in the final analysis; and then, did you consider that each of them had to go through processes of transportation, manufacture, distribution and of business, before it reached your table? Labor was employed on the farm, and in all the other processes. The labor of getting the meal, after all of these things have been produced, is but a small part of what is required to prepare your breakfast.

We cannot justly draw a divisional line anywhere. Our interests, physical, material and educational, are common. We of the Farm Press believe that we are making business men of farmers. The farmer's intelligence is increasing. He is becoming and is more and more recognized as the wealth producer of the world. It would be a mistake and I should be very sorry to see any school teacher undertake to teach Agriculture in an intelligent way without having at hand a good Farm Paper to prove up on a lot of the theories that our book makers present. The Farm Paper is the medium that keeps next to the soil. Editorially they compare favorably with magazines, or any other periodical. If you would be a wise instructor, you must read the Farm Papers.

If, as an educator, you find the Farm Paper valuable, how much more valuable is it for the man who makes farming his business. At the beginning the boy on the farm takes his first lesson in practical things from his father, or the hired man, who is doing things that a boy likes to see done. He copies and he gets his first lessons there. The girl the same way. Farm Papers pass on, distribute and disseminate wisest and best methods of doing things on the farm. You at labor in the schools have your classes of tens, fifties or hundreds, as case may be. The Farm Papers have their millions. They are teach-

ing practical lessons. They are continuously doing it. The farmer's education goes on and he develops just as the rest of us do.

The Farm Paper has done much to develop business. It has been true to its mission. I speak, of course, in behalf of the better class of Farm Papers. Like all other industries, there have been and are those who have not always pursued the wisest course. The Farm Paper has helped in all national movements. You cannot name one great advance step made in behalf of American Agriculture that was not championed, fostered and furthered by the Agricultural Press. Our Agricultural Department at Washington must depend largely upon Farm Papers for disseminating information.

Our great educational institutions in almost every state in the Union, dealing with agricultural matters, give Agricultural Papers their rightful place.

The boy on the farm has an ambition. He, like all other boys, wants to do something and he needs to be trained to do it in the right way. He, too, seeks guidance from the Farm Paper. We of the Agricultural Press are glad to have gatherings of this kind give a place to the Agricultural Press. We want to help in all of these great movements such as you represent here today—extension work, college work, community welfare work. In order that we may have an enlightened citizenship, a better national spirit, and a better world to live in. It does not mean that we are interested alone in making better farmers, but we want to make better citizens—a citizenship that will wield an influence and power for good in this land of ours.

We need not tell you, it is a fact, nationally known, that among the leading business men of our cities are those who came from the farm. An investigation in this city a few years ago among one hundred of the leading bankers, one hundred leading merchants, one hundred leading lawyers, and one hundred leading doctors, etc., etc., revealed the fact that from seventy-two to ninety-four percent of the most successful in each of these professions and businesses were farm born and farm bred. We want our country boys and girls rightly trained, properly controlled, that they may become good citizens, wherever they go or whatever vocation theirs may be.

The Farm Paper stands ready to co-operate with you in every measure that tends to disseminate worthy information and that helps to make community and business life better. We want to shed abroad a ray of light that will bring happiness and satisfaction into every farmer's home. It is unfortunate that there has been some competition between Government Bulletins and Farm Papers along certain lines. The quickest and most direct way of reaching effectively all the farm-

ers is through the Agricultural Press. I witnessed a most excellent demonstration on the cost of milk production in Lansing recently. The result of the test, which extended over two years, dealt with twenty-five farms and something like five hundred cows. The purpose of the test was to ascertain the exact cost of milk production. That is, milk only. With the charts and information that were exhibited, we were convinced, in fact, fascinated, with the thoroughness of the information that was shown. This test produced some self satisfaction, but so far as the public is concerned, the world at large, they know but little about it. The plan is to put it in a Bulletin, but that Bulletin cannot be issued for several months. They must first get an appropriation big enough to cover the cost of production. I don't know how many they will distribute, but I do know this—that if it was given to the Agricultural Press of the country, millions of farmers would be reading about it within thirty days, and practical demonstrations are exhibited to us might be used immediately by farmers who need just that kind of information. There is no other means of quick communication that equals the Press of America, and the Farm Paper has its rightful place.

There should be a larger use made by the Government of this means of communication—a closer relationship of Farm Papers, Agricultural Colleges and Government demonstrations— so that the farmers of America might read in their favorite Farm Paper the latest developments and most helpful advice. Irrespective of this lack, the Farm Papers today give to their readers a larger measure of first hand, dependable information than any other class. An investigation made by the United States Government a few years ago indicated that seventy-four percent of the influence and power belongs to the Agricultural Press. College Bulletins and other methods of communications are way down in the list.

Every school in America ought to in some form or another teach the fundamentals of Agriculture. The Agricultural Publishers Association, which I have the honor to represent, reaches over 8,000,000 families per issue. We are interested in everything that has to do with the betterment of farm conditions and home life. We are interested in better markets, better schools, roads, sanitation. We want the farmer to have what he is rightly entitled to, just as good a place to live in, and as many things to enjoy, as we have in the city.

You have the opportunity of getting helpful and needful information for your school work for agricultural instruction, for vocational work along Agricultural lines, through the columns of the established Agricultural Press; in fact, you can get it no better or more depend-

able from any other source. You are aware that an appropriation passed the Senate the other day for some \$7,000,000 for vocational education. A part of this is to be used for agricultural purposes. How are we going to use it? Friends, what we need to do is to combine our forces and get together on a common ground of intelligence in work of this kind. You will find the Agricultural Press ready to support your endeavors. I thank you.

RURAL EDUCATION IN COOK COUNTY

EDWIN T. TOBIN

Superintendent of Schools, Cook County, Illinois

I am going to try to explain in the shortest space of time I can, the Cook County system of rural education. I am convinced that we have got to introduce into our regular school system that reaches all the people, an achievement course. We have in operation in Cook County today what we call an achievement course. We have always had the academic course. Every school has it, but in the public schools of Cook County we have introduced a new course called an achievement course. This achievement course is a course in school home projects. In other words, we have outlined nine school home projects that the children must do; at least must do one each year. In other words, we have gone so far as to say that when a child reaches the age of ten, as a part of his education in the public schools he must take a school home project, one that is definitely outlined and that is absolutely controlled by the public school system in the same way that the course is reading, writing and arithmetic or any other subject is controlled.

Now, one of these is a field school home project. I have not the time and I am not going to outline that. Another is a garden school home project; another is a poultry school home project, another is a cow test, another is a music school home project, and another is a business school home project. The point is this: when a child reaches the fifth grade or ten years of age, as a part of the education in the public school system, he must take one of these courses in order to complete the fifth grade. It is absolutely necessary, as I look upon it, to teach children to do things just as well as to study about things. In other words, you can't study successfully about things unless you are doing it at the same time; then to unite the two things together.

Now, that is the system, that is the course. No course in the world will put itself into operation, and that is the greatest fault. We have got to change our school system; we have got to change the organization of our school system in order to put that achievement course or any other in operation. Talking won't do it. Nothing on earth will do it, in my opinion, in a solid way, without the school system being so revolutionized and so organized as to be able to handle that outside work, and for that reason we have introduced a country life director. In other words, Cook County is divided into five divisions

of about equal area, of about four townships each, and each of those four townships is supplied with what we call a country life director, who is the school supervisor or the school superintendent and absolutely supreme in school matters. He is a school man, to begin with. He is county agent there, and he does every bit of work that any other county agent ever did, and he ought to do it, because he has got control of the schools to do it through.

Not only that, but he is charged with introducing the recreation plan; and he is charged with introducing this achievement course. Those are the three duties he has; to introduce the achievement course in his division, which means that he must see that every child ten years of age or over is taking one or two of those school home projects each year. That is probably his greatest charge. His second is to bring recreation into that community in any shape, manner or form. It doesn't make any difference whether it is an organization of farmers or a singing school or a spelling school or any other thing. That is his business and that is what he is paid for, to bring recreation as well as a school home project; and general supervision of the school.

Now, that is the organization here. These men are on the job all the time. They must do these things. If they can't do them, then they must give way to somebody else. I want to say that that is where our great trouble comes in, to get men and women that are fit to do that kind of work, and their great task is with the teachers, after all, because they have got to depend on the school teachers. They have got to have school teachers, and they have got to inspire them to do those things and to help them do those things. It has been said it is an easy task. It is not an easy task. It might be if the teachers were trained that way and had the vision.

Not only is this hard work—the hardest work I can think of is a country life director's commission—but in order to be successful, they have to be out day and night. I think every one of them was at the meeting last night. They are not here today, because they had call meetings today, and tonight and tomorrow night. They are out all the time. It is absolutely necessary for them to do that, because you can't get next to the people any other way. You can't reach this school district out thirty or forty miles unless you are there.

These country life directors work the year around. They are tramp teachers, if you like. Their business all the time, and especially in the summertime, is to spend all their time in going from farm to farm, visiting these boys and girls on their own school home project. Of course, they make money out of these projects, and I can tell you,

hundreds of them have made from two up to three hundred dollars in the past year, and that has to be banked, and all that.

But the one great trouble is to get teachers, and the power that those country life directors are given is so tremendous that you would be astounded. Any one of them has the right to go anywhere in America and pick up a teacher that he thinks will do the kind of work necessary, and that they want done. I want to say that in spite of that, they will tell you even with all the promises in the world made by these young ladies and young men who are seeking positions as teachers, when you put them out on the job, no matter where they were trained, in an agricultural college or not, they won't do that kind of work. They want to stick to the books.

I am going to cite one instance and quit. I think I have over-talked now. We have established out here very recently in Montrose, which is about twenty miles from here, a rural high school, and I think it has elements in it that are simply remarkable, because there are no traditions to make it a regular traditional high school. The high school district is absolutely dominated by two country life directors, Charles W. Farr and Seth Sheppard, who are absolutely imbued with these ideas that the high school and every other school should pass on the children's work at home and school home projects. It is up to them to get a school teacher. The board of that particular new high school is composed of farmers who are absolutely in sympathy with the work of the country life directors, and they give them full control. They said, "Go and get a teacher anywhere." It is necessary for me to certify the teachers, and I said, "Get him anywhere, and any man you ask me to certify, I will give him a certificate, I don't care where you got him, out of a factory or off a farm or anywhere else, because I am almost convinced that you have got to get a good long way from traditional things."

They wanted a teacher who would take a self-binder into that school room—it is only going to be a one-room country high school; the truth is, there are only eighteen boys, chiefly from the farm—and they wanted a teacher who would take a self-binder in there and teach these children how to take it apart and put it together and how to run it; or to take an automobile in there and teach these children how to take it apart and put it together; and he would supervise their home projects. This teacher is to go to the home regularly and see that the thing is carried on right.

Now, they searched the country to get a teacher for that. They finally selected one who is a graduate of an agricultural college and

was recommended, and he came up there. Do you think he would do that thing? He promised. He told these men, "Oh, yes, I am full of those visions," but when he got out there, he didn't do anything of the kind. He rang the bell and those eighteen children would come in there every day, and he put the book in front of them and the evening, of course, he went away. The country life director was right on the job after him all the time, directing and explaining and telling him what they wanted. He couldn't do it. That young man, after two or three months, quit and joined the army.

Now, that is the truth, absolutely, I tell you, it is the work behind the thing; it is hard work. It is downright hard work. It is up to them to get another man, and they have selected one who worked with P. G. Holden in the International Harvester Company for a long time. I believe they went there because they thought that this young man had received a training along that particular line and probably was doing those things. That young man has been on the job two weeks, but one thing is sure, he is doing the work in the two weeks that he has been there.

ORGANIZED LABOR'S POSITION ON VOCATIONAL EDUCATION

MATTHEW WOLL

Chairman Committee on Education of the Illinois State Federation of Labor

Mr. Chairman, Ladies and Gentlemen:

On the question of education we feel confident there can be no division of opinion. We all realize the value of education. Indeed, education is necessary for the perpetuity of our republic. It is not upon the question of value that we differ, but differences arise as to who shall be taught, what he shall be taught and who shall do the teaching. It is upon that problem that differences of opinion arise, and so we view that problem at difference with other groups in society.

If we look back to history, we find that there was a time when the great mass of workers was kept in submission by those who dominated the civilization of that time, that it was by fear and prejudice that the affairs of nations and the activities of mankind were governed. However, as the rural communities became developed into cities and as the manufacturing system that we know of today started and brought men together, we found a desire for education, a desire for knowledge, and as those influences grew, we found the workers demanding a greater training.

Out of that developed what we have today, our public system of education; our means of giving education to the people free, that is not entirely free; because we must be at expense in some way, but not directly by the children or their parents who, for the time being, are taking advantage of that educational feature.

In the vanguard of that development was labor. The workers all throughout the period of history, have been ever striving to secure the greatest degree possible of knowledge and information, not only for themselves but for their children, so that they might be better equipped to deal with the affairs of life that were to confront them in the future. So organized labor, or labor unorganized has at all times been in favor of any system which meant higher education for great mass of our people, and it is also perhaps strange to know, and history also proves that fact, that while labor was endeavoring to secure a higher development of themselves and of their children, to bring about a greater degree of education for all concerned, there was that same small group, influential but very small in number, who exer-

cised every power under their control and who exerted every influence possible in order to prevent the workers from securing a higher education.

And so we find with the early establishment of our public school system that small group of people who had been dominating our industrial and social life heretofore, using all their power and influence to prevent the development of the public school system. However, we were fortunate that it has developed to where it is, and we believe that our condition of life today and that our state of civilization today is largely attributable to the work of the public school system.

Organized labor today is not yet satisfied with our public school system. We call it a free school system. We know that it is not entirely free. We know that when children are sent to the schools, we must buy books for them. We know we must purchase material in order to secure the education that is given to them by the state through its schools. We know that the tools essential for education are not provided, and it is a considerable factor in many homes to provide those tools essential to give the children that necessary equipment. So we know that the schools as yet are not entirely free, and we have fought for years and we will continue to fight for all time to come, until our public school system shall be a true democratic public school system.

In this fight to give the children a better education before reaching the years of fourteen or sixteen, we find that same small commercial group, opposing the interests of the workers at every session of the legislature, contending against the providing of the essential tools necessary for the securing of that information and knowledge for which the public school system is established. And so, too, we find in more subtle ways, those same influences trying to prevent our school system from being that liberal and democratic institution which it ought to be in our republican form of government. We find it, subtle as it may be, in our schools, and it is manifested in our system here in Chicago, where a small commercial interest, dominating our school affairs, is seeking to deny the right of the teachers to associate themselves with the working groups in our communities in order that they may get their point of view directly, so that their training will be confined completely and entirely to the schoolroom and thus not give the opportunity for development of the teachers, to give to our children the broader views of life.

Why the separation of the teachers from this great working class for which the schools are primarily established? Why deny them the right to associate with this great group of workers? Why still that

fear that the teaching force, not only here but elsewhere, may graft some of the ideas, may become more conversant with some of the trials and tribulations of the working class and thereby enable them to give that essential training to the children to equip them in that way which they ought to be trained in order to meet the problems of life after they leave the school room.

And so you see that labor has constantly and is constantly engaged in liberalizing the education of our children. We want to give them the best training and best knowledge that is obtainable. We view also in our colleges with a degree of alarm the restrictions that are placed upon the instructors in those institutions, where those instructors are not permitted on the penalty of losing their positions, to give to those who are seeking a knowledge, a true idea of economic laws, and to destroy and disillusion the old economic fallacies of the past. We realize all these restrictions, and it is our constant fight to liberate our system of education and give to our children a true knowledge and true understanding of affairs of life, so that they may be truly and fairly equipped to meet the problems which they will be confronted with in the future.

Strange as it may seem, with all these activities of organized labor to bring to the children of the workers and the great mass of people a higher, a better and broader education, yet it goes forth that labor is opposed to vocational studies in our public schools. It seems to be almost a presumption of fact that organized labor is opposed to vocational education. Why that should be, no one of labor understands, excepting that that small commercial group again is seeking to prejudice the views of organized labor in order that the public may not give attention to their voice to the same degree that is given to that of the small commercial interests.

Organized labor has never been opposed to vocational training, vocational education, in our public schools. Organized labor believes that the schoolroom ought to be enlarged to every degree possible in order to meet the needs of the children of today who are going to be the men and women of tomorrow. We believe that all studies essential to the development of mankind and to equip the worker of tomorrow and the citizen of tomorrow to properly exercise his civic functions and his functions as a worker, ought to be included in the school curriculum.

We are not opposed to, indeed, we favor vocational education in our public schools. We believe the worker's children ought to be afforded an opportunity of securing that essential information before entering

the industries themselves. As far back as 1903, the American Federation of Labor took up the proposition of vocational education by appointing a committee to make a thorough investigation into this subject and to see in what manner the workers would be benefitted by this new additional study in our schoolrooms. Ever since that time, since 1903, the American Federation of Labor, in convention after convention, unanimously approved of the idea of including in the school curriculum the studies of vocational education, and so through our various state organizations and through our international organizations, we have endeavored to bring about that ideal of school teaching to our children.

At no time has organized labor opposed vocational education. The Smith-Hughes Bill, which has now passed the Senate and House and is in conference in order to agree upon a few differences between those two legislative bodies, has time and again received the approval of the American Federation of Labor, and has received the approval of the entire labor movement.

We believe in vocational education. We desire vocational education, and to prove that that is not merely an expression without any sincerity to confirm that opinion, let me direct your attention to the fact that for years the various international organizations and nearly every international organization of any stability today maintains and publishes monthly a trade publication for its members, that all of these organizations are devoting considerable space and encouraging many of their best experts in their particular crafts to contribute articles on technical matters and of technical value to the general membership, and are also imparting to their apprentices fundamental knowledge essential to the making of competent and skilled workmen in their particular craft. In addition to furthering these vocational studies and arousing interest in technical development among its adult or journeymen members of its association, they also maintain trade schools, not only for the education of their journeymen members but also to encourage their apprentices to give more time and study to the fundamental principles underlying their various crafts and vocations.

There are at least seven international organizations at the present time who maintain extensive trade schools for members of their organizations, journeymen as well as apprentices, and in nearly every instance, international organizations give credit to those apprentices who have gone outside and secured that fundamental training essential to the making of good workmen.

The history of the trade in the movement, its record since 1903,

evidences the fact that organized labor has at all times realized the essential value of vocational education and has responded to that thought and ideal in a practical form.

As I said before, we also favor the introducing of vocational education into our public school system. However we favor that system of teaching, we look somewhat with suspicion upon a small group of interests who are also interested in bringing about that sort of a condition, but who contemplates introducing a vocational system of training which we know will be detrimental to not only the workers, but to society at large. We have given this subject considerable study. We have not only gone into the schoolroom affairs, but we have gone into the factories, and we view with great apprehension what is going on in the factory itself, and sometimes and in some places, men will even doubt the values of vocational education if the tendencies which are so pronounced in the factories are going to continue.

A review of some of the industries demonstrates that where a trade in years gone by has offered opportunities of employment more than a mere sustenance of physical existence, afforded a comfortable livelihood and required a great degree of skill and knowledge, now through specialization and sub-specialization, the industry has been brought to a point where little or no skill is required. We know what specializing is doing. Specializing, if it continues as it is going at the present time, will mean that there is little need in the future for vocational education, because then a man will be merely a cog in the wheel. Of what value is it for us to give time and energy to inculcate into minds of our children and to train them into the knowledge of fundamentals underlying industries, if when they go out into the practical affairs of life, they can not find the opportunity to exercise that skill and knowledge which has been given to them through the schoolroom?

And so we find many industries today where the employment is purely automatic and where the man or boy, whoever it may be, is fastened to a machine which he operates from day to day by merely a few muscular actions. Truly, if the vocational education is essential, we know from our observations of all factors in industries that industries must likewise be regulated, and if vocational education is to be of value to this nation and to our people, then industries must likewise be fitted to give opportunities to the children we are going to turn out to meet the affairs of life in years to come.

It isn't the problem simply of imparting this knowledge to the children, it is likewise a problem of looking into our industries to see

that the opportunities are given to our children for a fair and comfortable livelihood. Of what interest is it to many workers today to enter into their factory or workrooms, to stand from early morning until late at night, being but a part of a machine, going through a few muscular actions without having any part at all in the product which the work has produced. The identity of the worker in many industries is almost entirely isolated from the finished product to which his labor has contributed, and so it is not surprising that in some circles of labor there should be opposition.

Trades we know of where skilled workmen were required in the past are entirely destroyed today, and with the inventive genius of our people, with the great development of mechanical contrivances and devices, we know that many other skilled trades of today in a few years to come will be counted among the unskilled classes.

And so you see, the problem is a large one. It is a vital one, and it goes far beyond the schoolroom. It goes likewise into the factory itself, and it is through our organizations that we hope to bring these two problems into unification. It is through our trade union movement that we hope to give to the child in the school room the essential and fundamental knowledge that is required in the shop, and through our trade organizations to so regulate the production in the shop itself as will make that knowledge imparted in the schoolroom of value to the children themselves.

Realize the importance that labor plays in this proposition. Realize that there is practically no other agency capable or competent to meet that situation unless we are willing to accept an entirely different conception of our individual system of government and adopt a more parental form of organization for society. Until that time comes it is for the trade union movement, it is for the workers not only to encourage a vocational education, but through their combined efforts and through their combined strength, also endeavor to regulate conditions in the workroom so that the time that the boy or girl may spend in the school will be of value to them.

It would be the most gigantic fraud for this nation or for this community or any community to ask of the children to give additional time to the school rooms, to give them training in additional studies when after having done so, that training and those studies would be practically of no value whatsoever.

And then, too, while favoring vocational education, we are somewhat apprehensive that the training itself may become of a specialized character and that the training may take that course of seeking to supply only the higher skilled crafts and by overcrowding the

market in that particular craft, bring down the wage and economic condition of the worker. We feel that if we are to encourage vocational education, we feel that if we are going to give that assistance to the public school system, that that system ought not be allowed to be diverted into channels whereby the economic depression upon the workers will be made even more severe than it is today. We believe that if it is to be a public institution, it ought to be for the public benefit, and we know that whatever depresses the great mass of people, the workers who are practically the great mass of our communities and government, what ever makes economic pressure upon them greater surely is not of a public benefit, but on the contrary is of a distinct detriment and harm.

And so we feel that with this vocational education being taken up in our various school rooms, it must be dependent upon the supply of labor available in any particular industry and that it will not do to train the youth of today for an occupation of tomorrow which is already overcrowded, because it will be of no service whatever to the youth himself and will only pit the youth against the father and make life for all more unbearable and more difficult and the task more hard. And so we feel that the public school matter on vocational subjects should at least be correlated with that thought of not overcrowding the labor market and giving us the opportunity of using our public school system for the benefit of the great mass of our people.

We hesitate a great deal to give our approval to the arguments some of the commercial groups have made for the necessity of vocational education in our public schools. We dissent entirely from their view on this particular point. They tell us vocational education is essential in our school rooms because the great mass of children leave the schools as quickly as they possibly can, that they are no longer satisfied with the studies that they have been receiving in our elementary schools, that many of the minds of our children are of a mechanical kind and that they are not in a position, unfortunately, I presume physically, to learn to receive knowledge in abstract form; that it isn't by books they can be educated, but only by the machine itself.

We dissent entirely from that viewpoint. We know that many children leave the schoolroom as quickly as they possibly can. We know, too, that the child is not a voluntary factor in that matter. We know that the child isn't a voluntary agent. We know that parents in many instances are compelled to take their children from the schoolrooms, not because they are lacking in faith in the studies of our schools, but because the economic pressure is so great that they are using the services of their children to bring in a greater sum to make

both ends meet. That is the cause, and that is the reason many of our school children are forced to leave our schoolrooms and enter into employment in our industries.

Let me say to you, men and women, that in the heart and in the mind of every parent of the workers there is that desire to give to his or her child the same education, the same opportunities, that there is in the hearts and minds of those of you who may have children at home. There is that same feeling to give them the best equipment within their means and power, so that they may be able to go through life with greater ease and comfort than they themselves have been allowed or permitted to go. There is that same feeling in the heart of every parent of a child; whether it be of a worker or of an employer, but it is simply that great economic pressure, that great economic determination which forces the parent to take the child out of the schoolroom and send him into the factory in order to relieve that economic pressure upon all concerned.

Do we need ask for proof of that? Let us simply look on the records of the Boston investigation, where we found when free textbooks were introduced, when only that slight economic pressure was reduced, the attendance of the school children increased enormously; and some other investigations verify that same fact, and so when we are told that the child leaves the schoolroom because there isn't the vocational training, because the abstract method is not desirable for all the children or desired by the parents then we know the argument for vocational education is not marked with sincerity but is marked more with a desire to bring into our schools an apprenticeship system and to train the youth in the schools so he may be exploited the following day in our factories.

Against that we are opposed, because we believe that that sort of education, we believe that that sort of a system is a system of exploitation against humanity itself and not deserving of any consideration by a democracy or a republic as we have here today.

I don't know that I need say much more as to the attitude of organized labor upon this problem. We are heartily in accord with it. We want, in connection with the subject of vocational education, to have the understanding that vocational education shall be vocational education, that it shall not be merely a specialized training of the youth to equip him for a highly specialized industry for tomorrow, rendering more oppressive the conditions of our workers. We are also apprehensive as to the introduction of other developments into our public school system. We are confronted with many problems today in our school idea. Only here recently in the city of Chicago we now find it essential

to make soldiers and military men of our youth. I presume in connection with that subject we will now divert our idea of vocational education. Instead of training the man for a highly specialized industry, we will train him in the methods of trench-digging and in the making of munitions, and thus be prepared for all time to come, not only to safeguard our borders, but to conquer any one that we may desire to; and so we are bringing in all of these problems, militarism, and that, I presume, is vocational education for the making of munitions and trench-digging.

Against that form of vocational education or against that ideal we are strongly and emphatically opposed. We believe the ideal upon which our public system ought to be maintained and ought to be retained and if need be, extended to make it apply to our conditions in times of today, by giving that broad general knowledge of vocational education which now is denied to the children and to the youth who must enter into the factory of tomorrow. We realize, even in the specialized industry of today, that the fundamental understanding of the principles governing that avocation of life or that trade would be helpful not only to the youth himself, but to the industry as a whole; that an understanding of the fundamental principles underlying his particular work would make his work more interesting and bring with it a better liking to that form of occupation; and would also induce him to think further and to develop further whereby he might branch out into some other industry or some other work.

We are agreeable, we favor, indeed, we urge that sort of education. We believe, too, that in this vocational education should be included a study of science underlying the various industries and trades and occupations, and so too, do we believe there ought to be that steady, sober responsibility of one worker to the other, and the workers to the industry and to society as a whole. We feel that with the great problems involved on this question, the regulation of the factory, as well as the vocational studies in the schools, collective bargaining and trade organizations among the employes is an essential factor and rather more essential than has been exercised by some of our school authorities to divide the workers and to destroy the teaching forces. To bring about a complete isolation of all of this great individual factor in this great group of industry is harmful and will not bring the result which is desired by every one who has given this subject fair and honest and sympathetic consideration.

I am not going to take up any more of your time except to read to you, in order not to leave simply my impressions with you as stating the position of organized labor, but I want to read to you briefly the

declaration of the American Federation of Labor on this subject, adopted at the convention a year ago; and then, too, briefly to read you the declarations of the Illinois State Federation of Labor upon this particular subject, to prove to you that labor itself not only is in favor of this sort of education but is anxious for it.

There is one point that I came pretty near overlooking, and that is really the one upon which there has been a great deal of controversy, and that is as to the management or control of these studies. There has been a group in our society who have felt that to carry out these vocational studies in a practical and efficient manner, those studies must be under the control of a separate and distinctive board of management. We who have given this subject deep consideration, who realize the value of education whether it be cultural, academic or vocational, realize the danger in separating our system of teaching and of school studies. We realize the danger of dividing the authorities in educational matters. We realize the danger of establishing two distinctive systems of education, wherein that same group who, as history proves, has always endeavored to suppress knowledge from the workers in order to keep them confined and restricted—we realize that that system of education, vocational, may be looked upon as the prime and the most important system of education in our community. We are not prepared to say that that is true. We still cling to the idea, and I think truthfully and rightly so, that the cultural education which will train men for citizenship is the higher and the greater education essential to the welfare of our nation and of our country, and so we feel that to divide the school authorities and to establish two systems of education in our communities or states or national government would be a distinctive harm to the communities and to the nation at large, in that it will create in the minds of the parents as well as in the minds of the children the belief that possibly the higher of those two is vocational education rather than the other, the elementary studies which are essential to the learning of all.

And so we feel, too, that with the dividing of our educational system into two groups or two distinctive systems, there will come that confusion between authorities in school matters themselves which can only result in turmoil and strife and friction, to the detriment of the school child, to the detriment of the teaching force, to the detriment of the school system as a whole, and to the detriment of the people as a whole.

And so we are opposed unqualifiedly to a dual system of administering the affairs of our schools. We want all of our school matters under the direction of one authority and we want even more; we want

that school board authority directly responsible to the people themselves. (Applause.)

Feeling, as we do, that the educational system is perhaps the most important system for the carrying on, for the perpetuity of our government, we feel that that system ought to be made most responsive to the people themselves. We find even now ideas prevailing to reduce the control of the people even further than it has been reduced from them at the present time. We are opposed to those developments. We are opposed to those ideas and tendencies. We want the school board authorities an elective board, made directly responsible to the people and thus give the people an opportunity, year after year or time after time to express their views on school matters and to have our school system run from the bottom up and not autocratically, as it is being done, from the top, and the great mass of people compelled to submit to it as we have been constantly in all these years. (Applause.)

But to read the report of the American Federation of Labor upon this subject a year ago: I will simply read you the recommendations of the committee, which were adopted: "We highly commend the Executive Council for its thorough analysis of the educational needs and problems confronting the workers today. Prompted by this analysis of the Executive Council and by the observations, opinions and conclusions herein expressed by our committee, we recommend the concurrence in the several recommendations of the Executive Council, noted in its report, with the following additional requirements:

"First: that in approving industrial education, equal attention should be given to the general educational studies and requirements of the school children. Your committee believes the latter of greater importance to the future welfare of the workers than the former instructions.

"Second: that industrial education shall include the teaching of sciences underlying the various industries and industrial pursuits being taught, and their historical, economic and social bearing.

"Third: that all courses in industrial education shall be administered by the same board of education or trustees administering the general education, and that no federal legislation on this subject shall receive the approval of the American Federation of Labor which does not require a unit system of control over all public school studies, general and industrial. We recommend that the Smith-Hughes Bill be endorsed by this convention, but that such approval is dependent upon the amending of the bill so as to eliminate the optional system that the states accepting the terms of this bill shall be required to comply

with the unit system of control. The bill should also conform to the several recommendations herein submitted.

"Fourth: that the Department of Labor at Washington be requested and urged to co-operate with the Executive Council in conducting a thorough investigation into existing vocational or industrial schools and systems of industrial education in full, in order to determine wherein such teaching has benefitted or harmed the workers; that the survey shall also include a careful investigation into existing shop practices and conditions in order to determine what industries are lacking in trained and experienced workers; such investigation also to determine the number of workers who are trained and experienced and who are out of the employment due to their inability to secure employment because there are more trained workers in that particular trade or vocation than the industries employ."

In that connection, let me say to you that the Labor Department did endeavor, during the past year, to make somewhat of a survey of trade conditions prevailing in industries, and it may be of surprise to you to know that the Labor Department in its report states that it has been unable to secure the co-operation of the employers to give that desirable information whereby an examination or a careful survey of industrial conditions may be obtained; so when we get to the question of who is really opposing a development of our public school system of education, you will not find on that side of opposition, labor, organized, or unorganized, but you will find it on the other side in the affirmative, fighting to maintain a rightful system of education, one that will be of help to the communities and to every one concerned in it.

Now as to the report of the Illinois State Federation of Labor, adopted one year ago on this subject, it is equally comprehensive and clear and defines the position of organized labor, I believe, in a form that can not be subject to doubt or criticism by any fair minded woman or man.

"Prompted by the observations, opinions and conclusions expressed in a foregoing report, we recommend the enactment of state legislation which shall include the following requirements:

"First, compulsory school attendance of all children between the ages of seven and sixteen;

"Second, (a) Authorizing the board of education of all school districts in the state to provide instruction in vocational subject; (b) any school district of this state establishing or having established or maintaining vocational instruction in the industrial arts and in agriculture and commerce, shall receive increased financial assistance from the state; (c) all courses in vocational education shall be administered

in each school district by the same board of education or trustees that administer the general educational courses; (d) in school districts maintaining vocational teaching, there shall be appointed by the board of education or trustees, an advisory committee on vocational education, each committee to consist of an equal number of employers of labor and of persons directly associated and connecting with bona fide labor organizations; (e) vocational instruction shall include the teaching of sciences underlying the various industries and industrial pursuits being taught, and their historical, economic and social bearing; (f) that whenever any employer engaged in any business whatsoever employs any person under eighteen years of age, and whenever the service of such employe terminates for any reason whatsoever, the employer shall report such employment or termination of employment at once to the school authorities of the school district, giving name and address, age of such employe, description of character of work to be performed or having been performed with reference to the skill and by such employe while in the service of such employer particularly knowledge which may be required by the employe in such employment, rate of wages paid, hours of service per day and such other information as may be required by the school authorities of the school district in which such employment becomes or has been operated. The school authorities should also be empowered to require such additional information to the employment of such person or persons any time during such period of employment."

Then we provide for annual reports and investigation into some of the private institutions which at the present time are exploiting the workers' children and the workers themselves.

These reports, in addition to the impressions I have endeavored to leave with you, I think prove conclusively the favorable attitude of the American labor movement on this question of vocational education, and I think ought to remove, if there may be, any doubt as to the position of organized labor on this subject. We agree with all as to the value of education. We want to bring home to our children the greatest degree of training and education and knowledge that is possible for us to give to them, to give to them the greatest training possible, to equip them in the fullest manner conceivable to meet their affairs of life as workers and as citizens in their future to come.

Your Chairman, in opening the meeting, happily referred to the legislation fostered and encouraged by organized labor. That is true not only in Illinois, it is true in every state of this union. It is true in our national government itself. Organized labor is not imbued with

a selfish idea, is not imbued with selfish motives. We realize the necessity not yet seen the light of combining with his fellow workmen, equal protection that we do to our own membership. We want your co-operation in this plan of vocational education that organized labor has favored. We ask your co-operation because we believe it is a program deserving the sympathetic support and encouragement of every man and woman interested in giving to the child the best possible opportunities for their life to come.

TRADE AGREEMENTS

CHARLES A. PROSSER

Dunwoody Institute, Minneapolis

Sometime ago a commercial traveler in the city of Atlanta had occasion to get change for a five dollar bill. He went to the corner hard by and found there a darky in tattered clothes, with a straw hat on his head, down through whose torn brim the southern sun was shining. Rushing up he said, "Sambo, won't you please give me change for five dollars?" Sambo took off the old straw hat and bowed low and said "Boss, I thanks you for the compliment, but I am very sorry to have to tell you that I haven't got the change."

I thank the Chairman of the afternoon for his compliment, but I am sorry to say there isn't a word of truth in it.

Coming so soon after the exposition of the position of the American Federation of Labor with regard to vocational education, I feel that the most fitting thing we could do would be to adjourn or to turn the meeting into a discussion of the many points that Mr. Woll has raised. Indeed, I think I am in the same position as Mr. Johnson, a Chicago gentleman who went down to Memphis to speak at a banquet. The program was crowded with many speakers. About eleven-thirty o'clock the toastmaster arose and said "Mr. Johnson of Chicago will now give his address." Mr. Johnson arose and said, "Mr. Toastmaster, my address is 913 Jackson Boulevard, Chicago, Good-night." That might be a fitting thing for me to do.

I have had distributed through the audience this afternoon a little pamphlet under the title, "Trade Understanding of Vocational Education in Minneapolis." I do not know at this moment how much use I will make of the document, but if you will thumb it through you will find there are four parts. The first contains the customary foreword, without which no document is now complete, in which I have made some explanations of the different parts of the manuscript. The second has to do with the relation of the school to apprenticeship training. The third has to do with trade understandings made by the Minneapolis survey. The fourth contains forms of contract of apprenticeship for use between employers and employes.

I think, Mr. Chairman, that the first thing I shall do is to submit the document with leave to print. I shall during my talk make reference from time to time to the material contained in this pamphlet. I

assume that you may find time in the midst of a busy life to read it sometime, and I assume I will be in a position to refer everybody in the room to such parts as I expect to discuss.

We held a survey in Minneapolis in 1915 which took about eight months for its completion. It was not a full school survey, but was a survey entirely for purposes of vocational education. It was somewhat different from most of the surveys made in this country. Most of them have focused their attention upon figures, upon statistics, upon diagrams of situations in terms of quantities of workers and values of production. This survey focused its attention almost entirely upon the attitude of employer, employe and school toward their large and joint task of preparing the workers of the future for their various employments. It may be said that the ordinary survey is perhaps best represented by a column of statistics and a typewriter, whereas possibly if the Minneapolis survey had any value at all, it may be said it was represented best by a conference. During the progress of the survey there were 186 different conferences held with employers and employes, sometimes in separate groups, but usually in groups where both were represented.

The point I want to make is this, because I think it has some value for our consideration of the whole question of surveys. I do not believe myself at the present time that statistical figures, painting doleful pictures of what may be the situation twenty-five or fifty years from now, have very large help or guidance for us in dealing with the practical situation as to how we may take care of this poor little pitiful child called vocational education, which has been laid on the doorstep of the American schoolmaster.

To my mind, the largest problem at issue is this, What is the attitude of the community as a whole? What is the attitude of the employers of the city? How far are they willing to go in the support of any scheme or schemes of practical training? How far are they willing to put themselves to any trouble or expense in co-operating with any scheme of vocational education which may be at the present time or at any time in the future, suggested? What is the attitude of organized labor in the community Does it believe in vocational education? How far is it willing to support a program? What are the things it objects to in the programs that have thus far been started in this country? How far is organized labor willing to make any sacrifice in order to co-operate with the schools in dealing with this new and very difficult problem.

To my mind, that is the nub of the whole matter, and any survey of any community which fails to get to the bottom of that question or

at least fails after having made only a mediocre attempt to get to the bottom of it, is hardly worth the paper which it takes to report its findings and recommendations. At least, that was our attitude in Minneapolis with regard to the problem.

Now, folks are queer people. They will stand aloof from each other and criticise each other, largely without any knowledge of the real attitude of those whom they oppose. One of the largest services which we school men can render, whether it be during the progress of a formal survey or in the ordinary discharge of our humble duties, is to bring together these misunderstanding and conflicting interests, quoting to them at the same time, "come now, and let's reason together."

The trade understandings which have come in Minneapolis have come through an attempt to carry out that scriptural injunction. It is a difficult matter at the start to get employers and representatives of the unions together in the same room for conference. Minneapolis is known all over this country as a very much "wide open" town. The trades are not very strongly organized. Collective bargaining, outside of one or two trades and those not very large trades, is entirely unknown. They haven't the habit of getting together, of talking things over, of making any arrangements whatever with regard to the trade.

But this is what we said to both employers and employees: "We want to bring home to you employers and we want to bring home to you trade unionists, a sense of your ancient responsibility for the future welfare of the workers in the craft who are to come after you. The school is utterly helpless unless somehow and someway, it can, through arousing that sense of responsibility on your part, get you to talking together, and somehow and someway, act together."

I must say for the credit of the employers and of the trade unionists of Minneapolis that after the ice was once broken, they managed to have a lot of very profitable conferences with each other. They met as gentlemen and they parted as gentlemen. There wasn't one angry word or one bitter controversy in all that time. They differed from each other and they differed frankly and boldly and squarely, but they stated their differences as gentlemen should.

Here was an employer who was running what is called a lock-out shop, a shop where a union man was not allowed to work. Over on this side was the business agent of the union, who had been fighting this employer for years, trying to break into his shop. Each had played every angle of the game to get the advantage of the other. Yet those men finally come to a meeting of minds in regard to what was

needed in the training of workers and the part which the school should play in the attempt to carry out their ideas.

There were other things done by the survey, but in my opinion that was the largest service which was rendered.

Now, I am not pretending to you that there aren't some weak spots in the situation in Minneapolis. We haven't a perfect situation. We have done some things which I shall attempt to describe. Some few things I pride myself we have done well. With some other things we have failed miserably.

The poor schoolmaster, whether he be employed by a regular school system or by Dunwoody Institute, is standing squarely between two fires, where he is bound to get hurt from time to time and where erable amount of hair and teeth. I think the business of the school is to stand squarely between the employer on the one side and the union on the other, seeking always and everywhere that which is for the best good of the child and the worker, confident in his heart that that which is for the best good of the child and the worker will in the last analysis and in terms of years, be the best thing for the trade unionists on the one side and for the employer on the other.

That isn't a very easy position to take and maintain in a city of four hundred thousand people, with the ebb and flow of that never ceasing conflict between capital and labor that perhaps will never cease until the millennium arrives and the lion and the lamb lie down together. It isn't an easy proposition. No matter what you do, you will be criticised. No matter what you do, it will be said, "It is done for this interest or for that interest." Sometimes the employers are mad at us because they think we have done things of which the unions approve but of which they disapprove. Sometimes a union becomes bitter against us because it believes there are some things we are doing which we should not have done. So I suppose we will have to do as the Episcopalians do, cry out from time to time. "We have left undone the things we should have done and we have done the things which we should not have done."

But I think we have started the habit of trade agreements and trade understandings on a basis which I hope will improve from year to year. Why trade understandings at all? Why not take the school to some remote hill and do what we have done too often as schoolmen, draw the curtains and say, "Our job is to take care of these people who come to us and let industry go hang. It is nobody's business but our own." That has always been our policy.

One by one all the agencies for educating our youth have placed old duties on the back of the schools. In the long sweep of the centu-

ries in which the home and the church or the farm or the school have been shifting the responsibility of training youth upon the schoolmasters there have been two tremendous tendencies manifested. One has been the tendency on the part of all other agencies to throw the old job on the shoulders of the public school system, and the other has been for the schoolmaster to rush into that task where angels might fear to tread and saying, "This is my task. It is nobody else's business; let me alone."

Instead of the home and the church and the farm and the factory and the shop and the business house co-operating in the education of our boys and girls, they have been getting farther and farther apart.

The proposition for trade understandings rests on a number of, to my mind, fundamental propositions. It is absolutely impossible for the school to solve the problem of industrial education alone. It doesn't know the job. The school is making a product which is to be consumed by industry; consumed in the future I hope in a better way, but nevertheless consumed. It is the business of the school to have due regard all the time to the demands of the customer that must be met in the future.

It is absolutely impossible for the school to handle the task unless it can get onto a working basis with industry. Finally, the school at bottom is a manufacturing establishment. Every school is a manufacturing establishment; but industrial and trade schools of all kinds, day, part-time, dull season or evening, are manufacturing plants. What do they do? They take the youth with his untrained mind and untrained hand, and they give him an awakened mind and a skilled hand. But the school's task is only partially completed when it opens its doors and takes children, when it gives those children a certain amount of training. To my mind the most important task, is to be certain that the school completes its job by providing for the proper placing, the advantageous entrance and further training of those children after they enter industry. In other words the school like any other productive industry must place its product.

It was on that basis that we attempted to deal with this problem in Minneapolis. Our efforts failed sometimes, disastrously failed. There were humiliating failures and experiences. Nevertheless I think the public schools of the city and Dunwoody Institute, had their eyes fixed all the time on the one goal of selecting the proper people to be trained, of giving them the very best training of which they were capable, of providing for their proper place and further education after they entered upon employment.

There were certain things upon which both employers and em-

ployes agreed fully when they met in conference. They said that modern industry is so specialized that there is no such thing left in it as the training of the worker beyond the one specialized task upon which he is engaged. That task is so highly specialized that he will learn it in a short time, and when he has acquired it, he does nothing else, but the one thing over and over again.

Second, the old institution of apprenticeship has gone out with the specialized machine. There is today in the city of Minneapolis practically no such thing as apprenticeship. The census reported about three hundred people enrolled as apprentices. By the ancient definition of apprentice, there are somewhere in the neighborhood of forty-five or fifty people today who could, by the exercise of the widest charity, be called apprentices, and none of them are indentured, because that written contract of indenture has absolutely disappeared.

Third, industry is incapable of training its workers beyond the demands of this one specialized task. Fourth, there is still need for the training, all-around training of superior men for leadership. There is need even under the distressing conditions of modern production, for revival of apprenticeship, for a small and highly selected group of the young workers who are to be all-around workmen in these factories. Such all-around workmen have practically disappeared today.

Employers and employes were agreed on this proposition: If a day school were to give a group of boys the kind of training they ought to have, those boys would after a while come out on top of the business as leaders. They now work their way up from the bottom by sheer force of their better training and skill.

These employers and employes believed without exception in the evening school. If a man who is employed during the day had a chance to go back to evening school and that evening school taught him through a series of unit courses, meeting his needs in his daily work, he would become after a while a fully equipped workman and leader.

Recognizing the necessity under modern conditions, of specialization both employers and employes said in conference that they regarded the day and evening school as being the only way in which to protect and safeguard the workers against this tremendous minute specialization so characteristic of modern production.

I want at this point to take up one thing that Dr. Snedden spoke of from this platform. I dislike to disagree with Dr. Snedden. He was my beloved teacher at Columbia University. He was my superior officer when he was commissioner of education in Massachusetts and I was the deputy. There is no man in education in this country whom I so greatly admire particularly do I admire the profound ability which he has to think his way through things.

I agree with all that he has to say with regard to the conditions in modern industry. I think that we schoolmasters must keep constantly before us the fact that industry is specialized. The boy in your industrial school is going to work at only one task. Don't forget that these men who come to you at the evening school are today working at the ne task.

The place where I think Dr. Snedden needs to be checked up, with all my admiration for him, is this: I do not believe that we need to bother ourselves today about the proposition of preparing people in these very short courses of two or three weeks for entrance upon industrial life. My opinion is that that is the business of the employer and should remain his business. (Applause).

For a long time to come, at least, and I do not today see the end of that time, all the public funds we will be able to acquire for the support of vocational education, can well be devoted, and more than all we get will have to be devoted, to the other and larger and more important task of broadening out through this continuous succession of short unit courses, the evening school man after he has gone to work and comes back to the school for training.

My opinion is that any other conception of vocational education today is narrowing and will prevent us from discharging what I believe is our larger and more important task. I say that with the largest amount of respect for Dr. Snedden. I have no doubt if he was here he would agree with every word that I have uttered.

Not one of the men met in the 186 conferences held by the survey in Minneapolis: not an employer in the city, not a trade unionist in the city, had one good word to say for the proposal to take the novice off the street and make him into a mechanic through evening school instruction. I think the biggest piece of nonsense, if you will pardon me for saying it in such emphatic form, that is abroad in this country today is the proposal to take public money and use it through the avenue of an evening school for the purpose of making a dry goods clerk into a machinist, with fifty nights of evening school instruction in the course of a winter. I think it is a criminal use of public money, and I think when schoolmasters stand for such a plan they are choosing the path of least resistance?

There was a dorky sitting on the top of a rail fence. He had a hickory pole in his hand. On the end of the pole was a string. On the end of the string was a hook. On the end of the hook was no bait, but the hook was in a mud puddle. A white man came along and said, "What are you doing?" He says, "I am fishing." "You know there aren't any fish in there." "Boss, I know there ain't, and there never

was and there ain't never going to be any fish." Then what are you fishing there for?" "Boss, because it's easy."

That is the reason the schoolmaster fishes in the puddle of the novices with evening school classes, which he calls trade classes. It is because he hasn't acquired the courage and willingness to get in touch with industry, to realize that the workers there are chained to the specializing machine, and to go to the trouble of playing his part in opening up the avenue for advancement for these workers by short cut courses in an evening trade extension school.

You can dismiss the whole proposition as an absurdity. Fifty nights of evening school instruction in one hundred hours. Divide that by eight and you have got twelve days. Do you mean to tell me that anybody can learn machine shop practice in twelve days? You can teach a man to operate a simple lathe, after a fashion. I grant, so can the industry. Evening school money needs to be spent for the man already at work on a lathe, on things that he cannot learn in the shop.

We had a bitter fight in Indiana about the clause in the state law which restricted the use of evening school money to trade extension course. I wrote that clause, and I am prouder of it than of anything I ever did, because I believe it to be sound. I wrote the clause in the Smith-Hughes Bill which says that not one dollar of federal money shall be spent on evening classes for any other purpose than trade extension courses for those already employed.

If you want to open up some social and recreational centers, if you have a small manual training outfit and you want to give fellows a chance to make some mission furniture for their own homes "well and good", don't call it industrial and trade education, call it manual training, call it recreation.

These employers and employes looked upon the part time class as a most excellent plan. They also believe the dull season class for the building trades was a good thing. The dull season class takes the apprentice from the plastering, stonecutting, carpentry, plumbing, steamfitting or bricklayers trades. It trains them in the winter months, January and February, in Minneapolis when work in these trades is suspended.

It was when we got down to day school that we began to run into trouble in our conferences. Employers didn't object to the proposition of a day school. They weren't very enthusiastic about it. They pointed to the manual training that had been going on in the city, excellent manual training too, by the way. They said it had no industrial significance. They said, "We don't believe that is going to give us what we

ought to have in industry." The unions agree with this. However, they feared the day school for other reasons. They said, "There have been a lot of fly-by-night industrial trade schools established in this country under private auspices that have been established for money-making, for sinister purposes." They pointed out schools where you can learn to be an electrician in six weeks or a plumber in ten weeks or a printer in four weeks if you pay an eighty dollar fee at the start. They said, "We are opposed to that proposition. This objection we met by showing that so far as the day school was concerned nothing less than two-year courses were contemplated. The unions said in the second place that they feared the productive shop. This point we argued over and over again. You know those words, "productive shop," have a big sound. If you exercise your imagination, you can just see tons of goods running out of back doors of an industrial school that have been manufactured by the labor of pupils.

The unions said, "We want to know something about this productive shop, because we are bothered about it." "Well," we said, "do you believe that the boy ought to spend at least half his time in actual shop work in the school?" The said, "Anything else is foolishness. Sure, he has got to get the skill down in his hands at the same time he is getting his book work." "All right; you believe that, do you?" "Yes." "Then he must work on something, must he not?" "Yes."

"Do you want to have the real thing or an imitation of the real thing? Do you want this boy to do a piece of work under the instruction of a man who knows shop production, or do you want him to work a little piece of iron or wood that has been prepared by somebody for his little exercise and make a dumb-bell or a tabouret for sister's parlor?" "We want the first; never the latter."

"Will you gentlemen agree that it would be a waste of public money to use material for exercise work or for real work and then, when you get the article produced wreck it and throw it out on the waste pile? That would be a waste of natural resources. It would be a waste of public money." They said, "We will agree absolutely that that is true." "All right; what is your trouble, then?"

"Why," they said, "every time a dollar's worth of that sort of thing is made, it takes the bread out of somebody's mouth." We found the employers in a few trades raising just the same issue. That was particularly true of the printing trade. The printers have always looked upon the printing done by the public schools in the past as something which legitimately belonged to them. It isn't usually the typographical union that objects to the printing for the schools being done by the printing class of the school but usually the small employ-

ers of the printing trade who are deprived of a little printing. They are not willing to forego this for the sake of the good of the boys who are being trained for the business.

I said, "I am prepared to demonstrate that the actual effect of establishing a day industrial or trade school is to increase the demand for labor in every case and not to decrease it, and if I can not prove that proposition I am willing to resign my job." Let me see if I can not prove it by figures.

The business of an industrial or trade school is not to produce goods, but to produce workers and men. Its aim is not production, but education. The only purpose the shop serves in the school is to aid in securing that end and that end only. The minute the school steps over the line, so that it continues to work boys on any one given process after those boys have mastered it, for the sake of making more money or profit for the school, that school ceases to be an educational institution and becomes a commercial shop and factory. (Applause.)

Our trade union friends and employers do not realize what a poor manufacturing establishment an industrial and trade school is. The school is constantly taking on accessions of new boys, some of whom never stood in front of a lathe before in their lives. They are as green as gourds with regard to every machine or tool. Instead of keeping a boy on one machine and process the school is constantly changing him. Say we shift him four times through all the machines on the rough work and then on a little better work and a little better work and then a little better work. Just about the time the boy gets so he can do a piece of work so it will pass muster and you have brought him up to even a reasonable degree of trade shop speed, he is shifted to the next job and the next job.

There isn't today on the face of the globe a self-supporting industrial or trade school shop, and when the claim was made for the Gary School, as it has been made over and over again, that the shops were self-supporting institutions, the claim was based on a mere juggling of the figures and nothing else. (Applause.)

Now for the figures. The Worcester Trade School, at Worcester, Massachusetts runs one of the very best school shops in the country. Five years ago, there were 180 boys employed in the machine shop and wood shop of that school. The value of the labor product they contributed that year, was about five thousand dollars.

Now divide with me. Five thousand dollars divided by 180 gives you a little less than thirty dollars for each boy during the year. That school ran, I think, forty-four weeks. In other words, the labor contribution of the boys in the school shops was about twenty-nine dollars

in forty-four weeks, or not much more than seventy-five cents a week.

That shop was giving employment at that time to eight mechanics drawn from the trade, not to mention the teachers of related subjects. The average wage of those men was eighteen hundred dollars a year. In other words, the school paid \$14,400 to mechanics or teachers. The effect of the establishment of the Worcester Trade School in the state of Massachusetts was to create a market for \$14,400 worth of trade service. At the same time it took away from the trade \$5,000 worth of trade service, leaving the balance in favor of the trade over \$9,000. This was equivalent to an additional demand in that community for six workmen at fifteen hundred dollars a year and for eight workmen at twelve hundred dollars a year.

The Boston Trade School, three years ago, turned out \$12,000 worth of stuff in the course of a year. \$5,000 was for the material, leaving the labor contribution of 400 girls, \$7,000. Divide \$7,000 by 400 and you have a little less than eighteen dollars as the contribution of each, working on a forty-five week year. She was producing about forty cents a week. That school gave employment to twenty-one women, drawn from the trades. The effect of that \$7,000, we will say, was to deprive ten women of employment at \$700 a year, or seven women of employment at \$1000 a year; but it gave employment to twenty-one women whose average salary in that school was well over \$1000 a year. You will see that the effect of that school was to produce a demand for labor in that community to the extent of \$14,000 at least.

There is another thing that my trade union friends didn't altogether realize when we were talking the matter over in Minneapolis. Industrial schools draw boys away from the industry. They hold such boys out of industry for two years. They would have been far greater producers in industry than in the school.

So the industrial school not only does not overcrowd the market with goods. It creates a market for labor both by giving employment to mechanics and teachers and by keeping the youths longer in school or out of industry.

I have said that the total effect of any industrial or trade school worthy the name is to increase the market for skilled labor and never to decrease it, and I stand ready to prove that by figures taken from any school worthy to be called an industrial institution.

In conference the unionist said, "Well, the other thing that bothers us is about overcrowding the trade." That has been the spectre in the minds of all the trades. I think we are so far away from that

that I don't think we need to worry ourselves much about it; but, I wanted to meet the issue squarely.

You know, at bottom this whole question of attending any school is an economic proposition. The speaker who preceeded me called our attention to the fact that a great many children leave school because they had to leave school, and I think that is true. Sometimes it isn't because the family is down to the very point of subsistence, but because the family, and rightly, has reached a certain level or standard or scale of living which is dear to its heart. When the children become numerous and expenses greater the only way the family has to hold on to that standard of living is to send Johnny out to work.

When you set up an industrial or trade school, you have exactly the same economic problems at work in the background as you have with the regular schools.

I am running a little school up at Minneapolis. We have a registration that is well on its way toward 2500 students. Only about 280 of these students are in the day school. I firmly believe that in a city of 400,000 people, when we get to the point where we offer training in a total of twelve trades, we will have a total registration in those twelve trades of more than 500 boys, sending out an average of from 20 to 25 boys each year. So you can see how many people are going out into those trades from year to year.

As a matter of fact, trades are always overcrowded, just as all businesses are potentially overcrowded. Knocking at the door of every trade, every calling, every profession in the world, whether it be law or medicine or theology or teaching or engineering or trade work or bookkeeping or stenography, is a tremendous army of the incompetent and the unfit. It is no answer to this problem to say that the industrial school will crowd the field. It will not. It takes boys, almost all of whom have made up their minds that they want to follow a trade, and puts them into the trade properly equipped rather than leaves them to grovel in the great army of the unfit and incompetent all the rest of their lives.

One unionist said, "We are afraid of this question of the control of this work. We don't want it used against us." They said, and they said rightly, "It has been used against us sometimes." One of the biggest mistakes that any man every made who ran an industrial or trade school in all the past was made on the day when he allowed his boys to go out and take part in a strike in the trade as strike-breakers, (Applause) and we people who are engaged in this movement today have constantly the spectre of that thing coming up in the minds of trade unionists with whom we deal. The business of the

school is to stay out of strikes. The business of the school is to play neither the trade union's game nor the employer's, but the game of the children.

There are three things the union can do with industrial education. It is coming, coming to stay. You can fight it; you can stand off and have nothing to do with it. If you do either one of those two things, you will have nobody to blame but yourself if it goes wrong. The third alternative is to get into the movement, to work with vocational education and help it and guide it, and by all means, let it help and guide you, for you need it as certainly as it needs you. I firmly believe that there is to be no salvation for the trade unionism of the future short of determined action to improve the efficiency of its own men. (Applause.)

As a result of our trade conferences in Minneapolis we have agreements for eighteen or nineteen trades. You can read of them in the pamphlet you hold. In the first place, we are going through two stages. We got employers and unions to agree to what you might call a *modus vivendi*, describing in a general way what we proposed to do.

We are running a two-year school. In it we try the boy out for three months in some trade. If he is suited for it we give him two years of training. We have an advisory committee from each trade taught and connected with the school. When the boy finishes his two-year course we put him in the trade at the third year apprentice wage. We control his employment and education during the year he is out in the trade as best we can, and confer the diploma upon him at the end of the third year.

We found it was one thing to get up a *modus vivendi* under which, in general, employers agreed to come to the school as the first source of supply and under which the unions agreed, so far as the closed shops with which they dealt, to subscribe to the same plan. It was another thing to secure for this boy a definite career as an apprentice in the shop after he left the school.

So we have now moved for the revival of the individual contract of apprenticeship for the boy in the trade. We have secured these with three lines; the automobile shop, which is entirely organized; the print shop, which is strongly organized—about ninety per cent of the printers belong to it—where the typothetae and the typographical union both agreed; and the bricklayers, where the master builders association on the one side and bricklayers union on the other side, agreed.

I believe, friends, that the two steps, a general trade understanding and apprenticeship, are absolutely necessary to insure the proper

selection, training, placement, further education and graduation of our young people who are to come into our schools, and I do not believe we can rest content with the mere job of opening the doors of our schools as we have our regular schools, taking in those who come, giving them training and then turn them back to the tender mercies of industry without any further control over them for the future. (Applause.)

A DISCUSSION

P. R. BELL

Delegate of the Fort Wayne Federation of Labor
Fort Wayne, Ind.

Mr. Chairman, Ladies and Gentlemen:

I think we have a very small calibre gun up here alongside of the big guns who have been talking this afternoon. I don't know what to think—there are so many different angles from which to view vocational education. We in Fort Wayne, are working out Dr. Prosser's idea. We believe that that is true vocational education. We are formulating trade agreements; the work of the vocational school is being formulated and looked after by the Federation of Labor and the various trade unions connected with the work brought forth in the school. They are absolutely in perfect accord.

As luck would have it, Fort Wayne is fairly well organized. In fact, in several of the trades represented in the school, they are one hundred and fifty per cent organized. We don't have the troubles that Dr. Prosser finds in Minneapolis. We have organizations of the union men and organizations of the masters who get together each year in trade agreements—collective bargaining—so when things of this nature come up, we don't have the difficulty that we would have were we never in accord and never get together at any other times.

So we found out, when the law went into effect we didn't know what to think of it. Organized labor looked at it with suspicion at first. We thought of manual training and it didn't look very good to us, but we began to investigate and discovered in the Indiana law that we could control the situation there and not the other side; and we control it, at least in Fort Wayne. We believe, if we look at it from the broader point of view, such as we take there, that what is best for us is best for all of the people in general. We believe that if we educate a boy along the right lines he will of necessity, be a union man. If he receives an education and begins to think, he becomes a union man. School teachers, notwithstanding the fact that they are not organized as they should be, are perhaps a proof of the rule. The apprentice cannot learn the trade in the shop, so we figured that the easiest and best plan was to place it in the public schools instead of in private trade schools, where the boys are more or less exploited.

Every teacher in our school is a practical man, teaching the prac-

tical end of the trade. We have an academic man, who takes care of the academic end of the trade and correlates it with the work in the shop.

Now, whether our plan is the right plan or not we don't know. We have had three years of it. We are working out the plans as Dr. Prosser has worked them out and is still continuing the work in Minneapolis. Our director, Mr. Gordon, believes exactly as Dr. Prosser does; in fact, in their work with vocational education they are in accord.

THE BANQUET

PRESIDENT MILLER: Taking up our subject this evening I think our Toastmaster needs no words of praise from me—Mr. William J. Bogan, Principal of the Lane Technical School.

MR. BOGAN: Ladies and Gentlemen:

According to the philosophers of materialism, man is a weak, miserable creature, as helpless amidst the forces of nature as the willow twig in a great whirlpool. His efforts to perform are practically negligible. In fact, according to some of these philosophers, notably the great Alfred Wallace, man is as close to a state of savagery today as he was in the days when he hung head downward from the treetops and ate his dinner of peanuts *a la carte*.

The only permanent change in social or industrial conditions comes from economic causes. If a peasant assassinates a prince and Russia mobilizes, and Germany declares war, and France and England and Italy follow suit, we should not blame any one in particular. We should look for the economic causes—a most comfortable theory, you will admit, a theory that at once removes from our souls the entire burden of sin.

We may apply this same theory to this banquet tonight. What is the fundamental reason for your appearing here? Some of you believe that you came here to get a good meal—a most foolish hope. (Laughter) You took fish, I see. There is no relation whatever between a banquet and a good meal. (Laughter.)

However, you think that you came here to listen to the eloquence of Mr. Shoop. Some of you think you came here to pick up nuggets of wisdom from Mr. Prosser. I tell you, two dollars a plate is a high price to pay for speeches in these days when eggs are classed with the precious stones. Some of you I know, some of you ladies, have come here in the belief that you will see Miss Marlatt hang the pelt of mere man on the barndoor; and some of you have expected to hear Mr. Shanahan tell how legislation might be secured in Springfield. We are going to fool you there, because I don't believe Mr. Shanahan is here, and he wrote that in all probability he would not be able to get here tonight. He will surely be here in the morning.

Now all of these things are mere delusions—delusions. The same cause that initiated the great European War brought you here tonight.

To elaborate: The Germans say that their wonderful industrial success of the past thirty or forty years excited the jealousy and cupidity of the Allies. The Allies say that the wonderful success of the Germans during the past thirty or forty years made the Germans arrogant and lustful for conquest. The cause is the same, whichever side you espouse, whether you are pro-Ally or pro-German. The entire difficulty came from that little white label, "Made in Germany."

The same thing happened in this country. Our captains of industry were driven to take up industrial education through the influence of that little label, "Made in Germany." They felt that the industrial supremacy of this country was in danger and they looked about for remedies. They studied the German situation and decided that we needed a system of industrial education in this country.

Now I don't wish you to believe that that cause, sordid, if you will, is the only one that has aided in bringing about this wonderful development of industrial education during the past decade, but that was the initial cause and one of the dominant causes for several years. Thank God, it is not the dominant cause now. There are other motives and these motives, I think, are indicated by the change in the title that we give to the subject. Nowadays we say always industrial education, and I am sure that there are some here tonight who attended that first banquet of the National Society for the Promotion of Industrial Education, who heard Dr. Eliot say that all there was to industrial education was mere trade school education, that the problem was very simple. We were trying to make something difficult out of it, and if we merely established trade schools, the whole problem would be solved to our satisfaction.

You see we have gone away beyond that and the problem is far from being solved; but Chicago, as one of the great cities of the world, ought to lead in solving this problem of vocational education; Chicago, I say, because I think the great majority in Chicago believe that the leader of this great movement should be the superintendent of the regular public schools. (Applause.) We hope that the courage, the strength and the wisdom necessary to bring this great movement to a successful issue will be given to the superintendent. It gives me very great pleasure now to introduce Mr. John D. Shoop, Superintendent of the Chicago Schools. (Applause.)

ADDRESS OF WELCOME

JOHN D. SHOOP

Superintendent of Schools, Chicago

Mr. Toastmaster, Members of the Association: I deem myself peculiarly fortunate tonight in being permitted to appear on the initial part of the program of the evening. I am fortunate in another sense, because in all probability the most desirable part of this program has been assigned to me, that of extending to you the most cordial welcome that is within the province of the Middle West to extend.

I have listened with a great deal of attention to that part of the program which has preceded. I was very much interested in the range given by one of the speakers of vocational education, that it begins with the cradle and ends with the grave. I think if I interpret correctly an epitaph that was described to me, I may challenge the veracity of the statement. It seems that a dentist had died and his wife had gone to one who was an expert to see if he would provide a suitable inscription to be placed upon his monument, and he agreed to do so for a stipulated price, and when the dear wife came to read the epitaph she found inscribed this sentence: "He is now filling his last cavity."

I wish that I could tell you tonight how happy we are in having you in our beloved Chicago. It is not necessary for me to extol the virtues of this magnificent city. They are too numerous to be comprehended within the time that will be allotted to me. I might also be subjected to the criticism that came to the man from Atlanta who when he was riding on one of the trains of the Southern Railway with a number of other traveling men tried to convince them that Atlanta was the greatest city in the world. He said Atlanta was the most modern city in existence. It had the most beautiful streets and the most magnificent residences and the finest looking ladies and the finest climate that were to be found in the length and breadth of the land. He said that Atlanta had only one fault and that was that it did not have sufficient water; and finally a man from Chattanooga, who was sharing the compartment with him, said to him, "Look here, my friend, if that is the only trouble with your city, I would suggest that you construct a pipe line a few miles inland and tap the waters of one of our great rivers, and then if you can suck as hard as you can blow, there will be no doubt about Atlanta having enough water." (Laughter.

We are not confronted with the difficulty of apologizing for our water supply. I read the other day of a couple of men standing in front of the great cataract at Niagara. One of them said to the other, "What a wonderful waste!" and the other fellow said, "What is your business?" He says, "I am a milk-man." (Laughter) I think that the lake provides sufficient water for all contingencies.

I am glad to be here tonight because I find myself surrounded by those who have been the pioneers in paving the way for the great plans of vocational education. There are seated in this audience chamber those who have blazed the trail and have pointed the way for the readjustment of our systems of education along modern lines, and it is a pleasure tonight as I see them, to speak a moment as to the triumph of the cause which they espouse. For let me say to you, ladies and gentlemen, that one of the most difficult things that the educator encounters is the attempt at the readjustment of conditions in order to meet immediate needs. More than one person who has espoused the cause of the profession has immolated himself and placed his own prestige and position upon the altar of his own conscience because, perchance, he may have lived a few decades in advance of the great procession. And so tonight it is a pleasure to testify to the achievements that have been made by men like Mr. Harvey and those of his kind who have stood in the front ranks, (applause) who were found in the vanguard at the time when vocational training was not yet recognized as a legitimate part of our public school instruction. Did you ever stop to consider what a glorious thing it is to live in the initial decades of a new century—a century which just a few days ago passed its milestone and now might be characterized as "Sweet Sixteen?" It is a magnificent privilege to live in such an age as this; and in an age in which the navigation of the air, which was always considered fanciful and beyond the bounds of human possibility, has been successfully performed; in an age in which the art of war has been changed from the horizontal to the perpendicular, as you will apprehend when you read the accounts of its terrible carnage in foreign countries; but above all, in an age in which we are beginning to recognize and appreciate those things which are fundamental and essential in the thing which we call education.

Just a few years back, when the lad followed his father off to work in the morning, and went with him into the little blacksmith shop by the side of the street watching the sparks fly while helping father in his crude way and as the best he could, no one seemed to realize that the boy was being educated by such a process. Indeed, it would have been degrading to the term education to have said that

one was going to school at the anvil of his father, and yet today, recognizing the necessity of maintaining the poise and equilibrium in that which we call education and training, we are bringing that same anvil into the schoolroom and making it a legitimate part of our system of public instruction.

It is not so long ago that no one realized that when a boy went to work on the farm and learned how to plant and to fertilize and to grow grain that he was being educated. Oh, no, it thought his education must come from the little schoolhouse down by the roadside; but today we are recognizing that the boy was by these processes weaving into the warp and woof of his nature the essential figures of a general thorough-going education. And so today we are beginning to appreciate that in order to get back to that symmetry which must characterize the mind and brain of the human being, we must bring within the confines of our places of learning some of the things that were formerly considered rude and coarse, and we must apply them if we may hope to maintain that poise and balance essential to efficiency.

More and more we are coming to realize that education means work. It means toil. It means application. It means teaching the human hand to respond to the suggestions of the developed human brain. It means bringing about a parity between manual and mental dexterity. It means that kind of equipoise that will ever give outward expression in some tangible form to the wealth of impressions that come to us from our own environment.

There is no such thing as a dual education. We are not here to promulgate that theory or dogma, for when we come to analyze it, we find nothing more than the same old education that has always been in vogue, although not posing under that particular title.

What we need today is an education of virility, and education with power in reserve behind it, an education that is measured in dynamic terms and units, an education whose value is determined by its powers of accomplishment and the ability to help to do the work of the world. Brawn and brain were the potent factors that leveled the primeval forest and brawn and brain are just as essential in the counting-house today as they were in the forests a half century since, for no brain can reach its highest order of efficiency, or yield the major products of human possibilities without brawn behind it to reinforce it; and for this reason we are looking well into our schemes of education today for that which will build up the physical and make of it the basis of that larger and growing mentality for which the needs of the times are calling.

Therefore tonight I desire to greet you in the name of that form

of education which fits the individual for the part he is to play in the economy of life. And education must be creative as well as acquisitive. If there is one kind of education, so called, against which I would like to warn you tonight, it is that type which is sometimes designated as automatic efficiency. It is easy sometimes, indeed, for us to be imitators, but our greatest task in life is to educate ourselves so that we shall become creators, i. e., individuals who can take in impressions from the raw materials of our surroundings and so elaborate and correlate in our own personalities these elements that they will be given out in the composite form of the highest standards and types of service. For after all, when we have summated the final purposes of education, I believe that they will be expressed more truly and more explicitly in the single term of service. Why is this true? Because education is the transformation of the cruder possibilities of humanity over into the finer essences that find their ways out into the darker regions of human need. Niagara poured its volume of water over that precipice for years, and men came and looked and wondered at the marvelous phenomenon of nature. They went away and again returned and watched that mighty torrent as it poured its stream over the precipice, but finally there came on a day one who stood before that torrent and detected in its roar the voice of a mighty potentiality that asked if it might be harnessed, and feats of engineering that have been the marvel of the modern world, that great potentiality, that great stream, has been turned into transmissible dynamic force, and by means of the dynamo, has been converted into what one might call the quintessence of energy, and sent off over lines of communication to drive the wheels of industry and of transportation and to furnish heat and light for thousands.

What is the secret? Control, transformation. And when we have applied that secret to the great brawn of humanity, moving on to its unknown destiny, we shall find that the same rule obtains, namely the transformation of the things that are gross in human nature over into the finer essences of human service.

I do not know the secret of life. I do not know the mysterious process by which we distill from our experience the elixir which is the draft of the gods, but when once it reveals its secret to the candid man, it expresses itself in terms of human service and individual sacrifice. To this end, my friends, let our labors be co-operative, that out of the great scheme of education there may come ultimately such lofty conceptions of its meaning that in the preparation of boys and girls for the duties of life their efforts will be measured by the contributions which they make to the great world of humanity at large.

If we may keep this thought in view, if we hold steadily to this, if we maintain a proper poise in education, vocational, intellectual and moral, then we may see in the product of our schools that mentality, morality and physical virility that will measure up to the problems of tomorrow. (Applause.)

PRINCIPLES THAT SHOULD GOVERN IN THE FRAMING OF VOCATIONAL LAWS

C. A. PROSSER

Director Dunwoody Institute, Minneapolis

When your superintendent was saying the things he said about this beloved city of Chicago, I was mindful of the fact that one never comes to Chicago without realizing that while Chicago doesn't hesitate to criticise itself, it doesn't want anybody else to do it. But I have no wish to do it.

There is a vein of optimism running through me tonight. I have been thrilled by the proceedings of this day, as well as lifted into the seventh heaven by the tremendous progress which the movement for vocational education is making in this country at the present time. I hardly know how to express how I feel about this good old world and what is happening to it. After all, this is the best day of the best week of the best year of the best century the world has ever known; and while this is indeed a critical year for all those who are not engaged in vocational education, for those who are in any way connected with the movement, it is a time of larger and larger opportunity and the beginning of a new era in American education. Why do I say that? Why am I so optimistic tonight? Well, largely because of the fact that this vocational education movement has made progress faster than any other movement, twice as fast as any other movement that has ever come upon the American people. The movement has made all our people more anxious to conserve our human as well as our natural resources. It has taken hold of the imagination of the American people as no other movement in education has ever done.

There is the danger. The truth about the matter is that this movement has come upon us faster than we are prepared to meet it, faster than we have teachers adequately prepared to give instruction, faster than we have a knowledge of vocations to which we expect to adapt our training, faster than we have courses of instruction, faster than we have methods, faster than we have buildings and equipment; and lastly and perhaps what is more serious still, faster than we have any adequate system of organization in most of the states of the union, for dealing with the problem.

If I had had my way about it, which I could not have, I should have been very glad to have seen this whole proposal to secure federal

aid for vocational education postponed for at least five years, because I realize that we are not yet ready to spend wisely the federal grants conferred upon the states under the terms of the Smith-Hughes Act. We shall blunder, we shall make serious mistakes, and yet, after all, I do not suppose that there was any other way out of the situation. It seemed quite certain five years ago that we should have legislation of this kind, that the national government would give the aid to the states to stimulate and encourage them in carrying on this work, and therefore, it became the part of constructive service on the part of all the friends of vocational education to take part in the movement to secure federal aid and to throw just as many safeguards as was possible around the terms on which that aid was given into the hands of the various states.

You know, after all, that is the way we do business in America. William Allen White says that a very large majority of our people are made up of what he calls "For-God-sakers," the people who get very much aroused on every question and who say, "For God's sake, let's do something." As contrasted with the Germans, we do not often attempt the solution of the problem from the standpoint of scientific study and due preparation before embarking upon a movement. We get a great hullabaloo started, we arouse ourselves, we get into an emotional state. We join the "For-God-sakers," and then we have some legislation. We put something upon the statute books which we must follow after some fashion; then we begin to worry. We make mistakes here and there, and learn by them.

In other words, we work not by careful study, not by deliberate plan and preparation, but always by the method of trial and error. I think we have a lot of that in our public schools and in vocational education; and alas, I am quite certain that we shall probably have a lot more in vocational education. With all of that, however, I am an optimist, because there is with us no other way out. Left to their own devices, it would have required a hundred years for all the states of the Union to have attacked this problem in any serious-going way. With all the expense and trouble, with all the failures and setbacks, in the last analysis we shall make progress in America in this movement, simply by dealing with the job, and the job is here.

The Smith-Hughes Bill passed the Senate last summer. It passed unanimously. It passed the House almost without a dissenting vote in December. After ten years of struggle, the national congress, backed by the platform of every great national party, has gone on record practically unanimously, not only in favor of the idea of vocational education, but in favor of granting large sums of money from the

national treasury in order to stimulate the states to carry on the work.

I want you to stop and think what that means. This is the first time that a specific grant has ever been given by the national government to be spent through the channels of the secondary schools of this country. There have been grants of money to the states. The national government opened up quite a number of pork barrels between 1830 to 1850, and a large sum of money was appropriated to the states, a good deal of which went into corduroy roads. There have been grants to the land grant colleges for special types of higher education. But this is the first time in the history of our government that any grant has been made and standards set up for education, of less than college grade.

It takes about ten years to get a piece of legislation of this kind through Congress. The public sentiment of the country has to be aroused. Congress has to be educated up to the new point of view and to the necessity of the new step. And along the way many men deserve credit for the things which have been done. About ten years ago, Congressman Davis from the State of Minnesota introduced the first bill, which provided grants for secondary schools in agriculture. Later Senator Dolliver took up the measure. He spent two years pushing it. When he went the way of all flesh, Senator Page, of Vermont, who as his colleague on the Senate Education Committee, took charge of it. He joined with him, William B. Wilson, formerly secretary of the United Mine Workers of America and at that time congressman from Pennsylvania. When Mr. Wilson became a member of the cabinet, Senator Hoke Smith took charge of the bill and associated with him, Congressman Hughes of Georgia. The movement was gaining strength. It was agreed that something should be done to push the issue vigorously. Senator Smith asked for the appointment of a commission. The Commission on National Aid to Vocational Education was created in January, 1914, and given exactly sixty days in which to make a report, with notice that there would not be any extension of time. The commission did something which no other commission has ever done: it reported on time down to the minute. At ten o'clock on the morning of the last day, Senator Smith arose in the Senate and Congressman Hughes arose in the House. Each presented the report of the commission. Further, that commission not only lived within its income of \$15,000, but it turned back more than \$5,000 of unexpended money into the treasury. This was a source of very great astonishment on the part of Congress and a factor in winning a degree of confidence which played no small part in the passage of the measure by the present Congress. Among the men and women who are present in

this audience, and here and there all over this country, are people, unknown and unread as they may be in the years to come, who are entitled to a large measure of credit, for the support which they gave to the measure.

A great many people are entitled to credit for the present status of the bill. Today is rests in joint conference committee between the House and Senate because of the difference of opinion in those bodies as to the way in which the national board of control should be made up. That point will be settled in a few days. The bill will be brought out, and passed. It will be signed by the President of the United States, I verily believe, before the first day of February. Grants will be given to the states the first of next July, the beginning of grants which by 1925 and 1926 will amount to at least seven million dollars.

And now I would like to talk about the principles which underlie this national legislation, pointing the way to the principles which will underlie the state legislation which must be passed by the states of the Union.

The national bill requires four things on the part of every state in the Union. First, the legislature of each one of these states must formally accept the provisions of the Smith-Hughes Act. There are forty-eight states in the Union. In thirty-six of the states the legislature is in session this year. In the other twelve states, the governor may accept the provisions of the Act until the next session of the legislature. The states which are in session this year have, on the average a sixty-day session, and within sixty days, in many of the states, the first step will be taken toward a system of vocational education.

The second thing which the legislature or the governor must do is to designate the fund or funds which it proposes to use. There are three: one, finally amounting to three million dollars annually, for agriculture; similarly one of three million dollars for industries, and one of a million dollars for the training of teachers of vocational subjects. A state may accept the fund for agricultural education without accepting the fund for industrial education, or the reverse; but after 1920 no state may accept either without accepting the corresponding fund for the training of teachers. The provisions are the same for the fund for Home Economics education.

The third thing which the legislature must do it to designate or create a State Board for administering the Federal Act within the confines of the state. When the commission met at Washington a few years ago, the spectre of the controversy, which had been so especially violent in the state of Illinois, with regard to dual control, was always

in the background of the meeting room, and there was only one thing for the commission to do, that was to take the position from the start that the national government had no right to interfere; that the states would never tolerate the national government's interference with the autonomy of the states in the organization of their administrative machinery. This I believe is sound.. So in the language of the federal bill the state legislature must either "designate or create a State Board to co-operate with the Federal Board." If there is already a State Board of Education or other similar board, the legislatures may designate it. If there is no state board of education in the state then a State Board, made up of at least three persons must be created to administer the Act. In other words, Massachusetts will administer this work under a State Board of Education, the same one which is already directing vocational education in that commonwealth. Wisconsin may, if it chooses, administer the Act through the State Industrial Commission, already created. What Illinois will do is a question that doubtless will be settled by the present legislature.

The fourth thing that the legislature must do it to designate the state treasurer as custodian of this fund, allotted to the state quarterly. He will do business on the one side with the national treasurer and on the other side with this state board of control, paying out money to the various schools of the state on requisitions made by the state board of control. These things the legislature or the governor of a state must do to secure the benefits of the Act for a state.

What are the principles lying back of this piece of national legislation? I want to take them up under three heads; first, the principles that justify the grant from the national government to the states; second, the purposes that should underlie those grants; third, the machinery necessary to carry out the provisions of the Act.

Concerning the justification for the grant of this national money to the states, if we assume at the outset that we are relatively an inefficient people, if we believe that we need to become more efficient, if we believe that training has anything to do with efficiency, then, if we want efficiency we must train for it. Again, if it be right and wise for the national government to do all sorts of things at large expense in the attempt to conserve our natural resources, then the national government is justified in going to the same trouble and expense in the attempt to conserve the human resources of the country, the great undeveloped, uncovered, untrained skill and appetite and talent and possibilities, of the seventeen million children who throng the public school houses of this great nation. Again, if it be true, and it is true, that there is a sense in which the United States as a whole, as an eco-

conomic unit, is competing against well trained Germany or England or France or Japan, then the only way this United States can, as a whole, become a successful economic unit in that competition is by raising all of its people to higher and still higher levels of economic efficiency.

Further, the problem of vocational education in this country is a problem which transcends all state-lines and rises to the importance of a federal and national problem. Hence, every state in this Union must meet the problem of educating its people for vocational efficiency for state and national progress. With us state lines are not boundaries. Our people move readily from one state to another. They carry into their new locations whatever of training they have received; whatever of added intelligence, of larger skill, of better citizenship, as a rich asset for the new place of residence. If this be true, the problem transcends the state line.

One single construction house in the city of New York will, in the course of a single season, draw its workers from a dozen of the states of the Union and send them into other states of the Union to work. Cotton is raised in Georgia, sent to Massachusetts and made into textiles, which are sold in Chicago. Hides come from Colorado, are shipped into Massachusetts and there made into shoes which are worn in every state in the Union. So that measured from the standpoint of either products or work, state lines are blotted out and we become, in a sense in which we have not always regarded ourselves, a nation, a people belonging to a larger economic and political union which we call the United States of America; and the national government is fully justified in spending money for the purpose of improving the efficiency of every worker within its boundaries.

Second, what are the purposes which underlie this legislation? If you are deeply interested in this question I suggest that you read a little book published by Sidney Webb, called "Grants in Aid." It sets out the principles upon which this law is founded. Sidney Webb is one of the British economists who has grown tired of the "For-God-saker" attitude of his people, and who, much distressed because the English people have worked so largely by the method of trial and error, as we also have done, has been studying some of the great problems in English life for the purpose of trying to gather from them lessons for guidance in the future.

In his studies he has covered two hundred years of the history of what the English call "grants in aid"—the thing which we call state aid. The British government has been in the habit of giving sums of money into the hands of local governments, just as we have

given to the states sums of money out of the treasury of the national government; and just as we are today giving sums of money out of the treasury of the state governments to the various local communities of the states. He has brought together out of the experience of two centuries a set of rules which are given in the report of the commission and upon which, as I have said, this bill was founded.

The fundamental proposition is this: that grants in aid from central government to local government, from nation to state, or from state to local unit, should be given, first, for the purpose of stimulating the local community to undertake some new and needed form of service which the national government believes should be undertaken for the sake of the public welfare. The undertaking might be any one of a hundred things in education. It might be medical inspection. It might be play grounds. It might be athletic training. It might be military training. It might be a specific grant to help the struggling rural schools. It might be vocational education. It might be some form of rating. It might be some form of wide-spread medical service. It might be some form of workmen's compensation. But it must be something which the central government, the national government, the state, with a larger and wider outlook on the whole than any community may have, wants done so much that it is willing to say to the local community, "We are going to give this money to you because we want this service performed for the sake of the larger community."

I do not believe, friends, that we shall have many more grants from the state treasury to local communities—blanket grants for the general thing we call education. Personally, I think the time has come for the state through the state department of education, to discriminate carefully, and to select here and there those things which it believes should be done for the sake of a larger and better Illinois in the days to come, to focus the attention of the state upon those problems and to use state aid for the solution of those problems. If a man is honest in his belief that vocational education isn't needed in Illinois, if he doesn't believe it should be included in the list of specific things that are needed, he ought to oppose any attempt to pass legislation on the subject, Mr. President, because the proposition rests squarely upon the idea that vocational education is needed, that the national government should give certain specific grants to the states for its promotion.

A second purpose of these grants, central government to local government, nation to state, state to local community, it to equalize the inequalities of the burden. I wonder if you realize how great these inequalities are in taxing the resources of capital for purposes of education. In the little state of Nevada today, the returns are eighteen

times as much as they are in the state of South Carolina; that is to say, with the same rate imposed in the two states, taking them as a whole, by and large, Nevada would realize eighteen times as much money for purposes of education as the state of South Carolina. Or, again, South Carolina would have to tax itself eighteen times as much as the state of Nevada to secure the same standards in education. Hence, the national government, recognizing these things, makes national grants to the states to equalize the inequalities of the burden, and to equalize the opportunity for vocational education.

Third, grants in aid should be given, central government to local government, nation to state, state to local community, for the purpose of purchasing a reasonable degree of participation in the conduct of this new and needed form of service. I know this is where some of us disagree on the question of national aid. There are states in this Union which still look upon this whole government as being made up of forty-eight integral communities, which join together as a matter of convenience for the purpose of passing legislation. They believe that this money in the national treasury belongs to the forty-eight states and should be apportioned out among them.

There is, however, the other view, and it is behind this legislation. This federal grant sounds the note of nationalism. The money is national money, raised by national taxation. It doesn't belong to South Carolina or to Illinois. When it is expended, it is expended by the national government to aid the states in doing something which the national government wants done, and for no other purpose. It is therefore, the part of the national government to clearly define the purpose for which this money is to be used, and, without interfering in any way, shape or form with the economy of the states in carrying on their own educational affairs, to say to them, "If you decide to use this money, we want a reasonable degree of participation in this new form of service."

Fourth, the purpose of this national grant, central government to local government, nation to state, state to local community, is to establish what the English call an "irreducible minimum of efficiency." I mean to set the minimum standard, below which the community will not be allowed to fall with its work. When the state of Illinois gives a grant to the treasurer of a school so that the district may hold a seven-month school, and says "You will have to do it," that is establishing an irreducible minimum. Now, when the national government gives money to the state, or the state to the local community, it can define in the terms of the grant, the lowest minimum, below which

work to be done will not be allowed to fall and yet receive the aid. These are the principles upon which this law is founded.

There is a further matter which needs to be emphasized in this connection and I come to my third point—the machinery for putting this law into operation. I want you to appreciate the difficulty of it. This law proposes to give money to the public schools. The public schools are dear to the hearts of the people of these different states, who have established and maintained them along certain lines and with certain standards. Here was the proposition requiring new plans and new methods, and the national government wanting to see it carried out. How was it to be done? The national government might set up a plan and employ directors to carry it out. But the states wouldn't tolerate a flood of federal agents going about from school to school, inspecting and saying, "Here, you do this or you do that. If you don't, you don't get any money. I am going to report you." The states would not tolerate that, and rightly. Hence a plan of co-operation had to be developed, in which state governments and the national government could work together. And what was done was this. It was as though the national government said to the state, "Now don't misunderstand us. You don't need to take this money unless you want to, but don't forget that it is our money. If you do spend it, it must be on certain terms. Some of these terms are clearly defined in the law, others must be arrived at by agreement. We will have a Federal board. What we want you to do is to establish a State Board of Control. Your state board of control can deal with our Federal board of control. When they have taken into consideration the conditions set up in the law, and special features of the situation in Illinois, then we shall have a meeting of minds on the policies and principles to be followed in the expenditure of this money in Illinois. The money will continue to flow year by year, as long as you live up to your agreement." That leaves Illinois in absolute possession of its sovereignty. Illinois, through its legislature, may enter into the contract or not, but if it does, it binds itself to the agreement made between the State board of control and the Federal board of control for dealing with the problem of vocational education in Illinois.

In accepting the benefits and the provisions of the Act the state expresses its decision to promote vocational education in the state and therefore agrees to match each dollar of federal money with a dollar from state funds, local funds, or both. Standards and procedures for administering the Act within the state are to be set up by the State board, with the approval of the Federal board. In turn, the state bears to its local communities much the same relation as the federal govern-

ment to the state government. And by the same principles, it should pay for it, and likewise upon the basis of a co-operative agreement. I do not believe that the state of Illinois, or any other state, has any right to take part in the educational affairs of local communities without buying that right, on some reasonable basis. And the amount of aid granted by state and nation should be large enough to make it worth while for the community to tax itself in order to maintain the "irreducible minimum" set up in the terms of the agreement.

To my mind, a fair basis for such a contract is one-third from federal funds, one-third from state funds, and one-third from local funds. Such a division of financial responsibility provides for participation of state and nation, adjusts the inequality of the burden, and permits of a just pride in the enterprise on the part of the local community which comes from self-sacrifice for the local school.

At the risk of wearying you, I want to touch upon one more point—the control and organization of the schools for carrying on this new form of education. Illinois has thought much upon this question, and there are many who believe that separate schools, under separate control are essential to the successful promotion of vocational education. It seems quite clear that there are certain large gains to come from separation. Here is a new job in education. It requires new courses of study, different courses of instruction, different ways of handling the business. If we could start on a new basis without tradition and without machinery and deal with the situation as a business man would deal with it, and create a new system to fit the new conditions, without trying to fit it to traditional machinery, we should have conditions for the most rapid progress.

But as secretary of the National Society for the Promotion of Industrial Education, I had to face this issue about five years ago. One night I sat in my noisy room in New York City, high above the hurly burly of the traffic, and I said to myself: I have been in every state in this Union, and I am convinced of one thing. The American people have confidence in the public school system and public school administration and they are going to give the public schools of this country a chance to deal with this problem. So the place of constructive service on the part of the National Society has been to take the position that the thing to do was to accept as inevitable the idea that the American people do not want two systems of education within the same state, and, in consequence, to fashion our policies to work with the public school men of the country—to endeavor to bring about such a system of organization within the public schools as will leave this movement free to develop itself for a period of years. Somehow we must get

into a unit many of the gains which would come with separate control.

This might mean a standing committee within the board with larger powers than any standing committee has had, largely freed from the hundred other things which the Board of Education must deal with—a committee unhampered by tradition, with nothing else to do, but to deal with the question of vocational education. In some way we must get a group of people on the job of developing vocational education who believe in it, who have nothing else officially to do, who have been thrown into the lime light as officials whose business it is to get that job done—and hence who have to make good at it.

My final point, Mr. Chairman is this. There are, it seems to me two steps in the direction in which this Society must move. One of them, I firmly believe, is to promote the industrial efficiency of the common man. We must teach mechanism and the theory lying back of mechanism. But in our vocational schools we cannot stop with this. We must make people who are capable of independent thinking. We must make intelligent, efficient citizens. We must implant the idea of loyalty and a larger service to our country—and that therein lies the future of America.

WOMEN IN INDUSTRY

ABBEEY MARLATT

Professor of Household Economics, University of Wisconsin

It is dangerous to speak three times in one place. This is my third appearance. I feel very much like saying that instead of nailing the pelt to the barndoor, this is a case of being scalped and tied to the door.

I was told I would be put on the program whether I accepted or not. I was keenly reminded, when the last speaker was talking, of an old political story—all of you may have heard it. The ranchman saw his son disappearing over the horizon, holding onto the tail of the calf, and he shouted to him, "John, John, why don't you let go?" And John called back, "Father, I can't. It's all I can do to hold on."

I feel a little bit like a carpenter friend of mine whom I knew when I used to teach in the city of Providence quite a number of years ago. There was something wrong with the school system. The teachers didn't decide that, it was the parents' association. (Laughter). So we held a meeting, and to be thoroughly democratic, we had a representative from every union. The representative of the carpenters' union slowly unjointed himself—he was very tall, and as he rose said, "Well, before I started to talk on this subject. I thought I knew so little about it I would go to headquarters and so I asked my small daughter what she thought could be done to improve the schools of Providence. She thought a while and then she said, 'I think our recesses might be longer.'

"Now," he says, "you see it depends upon the point of view;" and that point of view has remained in my memory ever since whenever I hear a speaker on the subject of the present school system and the proposed system, either dual or not.

Last night, you know, we heard of the dual education of the woman. It aroused just as much resentment as the dual control of this proposed vocational education. I feel that what we need perhaps most of all in any discussion of education, regardless of whether it is for woman in industry or man in industry, is to get down to fundamental facts as to what will make success. We can succeed only when we know the point that we are driving at. If we know what we are going to do, we can persuade almost anybody in sight that we are the one

person who can do it. We need to teach absolute faith that we will succeed.

I think our school system fills us with doubt and we are teaching doubt as to our ability to succeed, and I believe that in any form of vocational or other education, the fundamental thing to teach is faith that we can do it.

When in the talks that come about through the effort of students to determine what shall be their future career, I always feel like saying to the student who comes to me to talk over the situation, "Find out what you want to do above everything else and then bend every effort toward it and you will make good. If you wait for me to suggest to you what may be your particular bent, it is at best a guess."

I believe that we need to leave the child with initiative enough so that it does not come saying "What shall I do next?" The reason that I felt so strongly last night in that discussion was that we were told we would be trained for juvenile trades and then for the trade of a period a little later, beyond the sweet sixteen period, and then for the period of home making that ought to come at twenty-five. Some of us miss it—therefore why take the training? (Laughter). And then later, presumably we would be trained to fill that last niche—what was it? (Laughter.)

What we need to be trained in, is to take initiative, and I don't know where that training is going to come best except as it begins from the time the child is allowed to take the initiative in the home and try it out; that is where vocational education begins. It is a question of training the will and training the judgment, and if in our vocational education we can do that best with the one-control system, then I think we ought to have it, regardless of what my own state may have adopted. Wisconsin tries out everything and then the rest of you profit by it. (Applause). It sometimes is a little bit hard on us, but I am also reminded that we have the fun of the game at least, and even if we do fail, as we often do, we at least have fought a good fight and that is something.

And in this vocational education, whatever system is used, I would like to emphasize that woman and man together have made good in over four hundred forms of vocation, but there is one that man has never entered into and the Lord will have to change the whole system before he can, and in this vocational education, whatever may be the other forms of training that we give, we ought not to forget that in the bringing up of the child woman is in control for at least six years, and no matter how successful she may be in other occupations—and this present war has demonstrated that under the

stress and strain of emotion, she can do anything and succeed. She should be trained how to teach the young. In this it is not a question of one sex. It is a question of teaching to control the will, so that the individual can make good wherever he or she may be placed. (Applause.)

THE OUTLOOK FOR VOCATIONAL EDUCATION LEGISLATION IN ILLINOIS

DAVID SHANAHAN
Speaker House of Representatives

Mr. Chairman and Ladies and Gentlemen of the Convention:

I am sure that I am at a loss to know why I should appear before an educational convention to attempt to make a speech. One making a speech is, first, always fearful of appearing before an audience of school children and next, an audience of school teachers and college professors.

I assure you I know but very little about educational matters and less about vocational matters. As your chairman said, I remember a number of delegations coming to Springfield two years ago on this subject. I remember the clashes between the various committees; committees from the Board of Education in the City of Chicago, committees from boards of education from various parts of the state of Illinois, committees from various so-called reform organizations and so-called commercial organizations.

I said to these various committees that I doubted if any vocational education bill could pass the general assembly where there was such a conflict of views, and especially where there was a conflict of views between these various committees and the State Superintendent of Public Instruction. And I will state now that I doubt if any vocational education bill can pass the Illinois General Assembly that has not the hearty approval of the State Superintendent of Public Instruction. I do not mean by that that the State Superintendent of Public Instruction knows all about vocational education but he is the official, elected representative of the people in that position and he should have the last say in behalf of the people as to the kind and character of a bill that ought to be placed on the statute books of the State of Illinois. (Applause).

I tried to arrange with these various conflicting elements two years ago, to see if they could not come to a compromise on some sort of a bill, but I found that the personal element had been injected from too many quarters. One coming from Chicago has got to be very guarded in what he or she might say regarding educational matters. For we have a very varied kind of a Board of Education, not the present board so much more than other boards, but it just seems that our

boards of education here in the city of Chicago must get themselves into the position of always being in the lime light, and one would think they are more interested in themselves than they are in the school children of the city of Chicago, (Applause), to such an extent that these so-called reform and commercial organizations and other organizations of the city are always proposing some changes in the method of selecting the board of education.

In the first place, our Board of Education is too large and unwieldy; and in the second place, there has entered into the election of city, nationality of the city and religion of the city. Things that never should have entered into the selection of members of the Board of Education.

We ought to have a small board of education selected because of their qualifications and their interest in the schools and the school children of the city of Chicago. There is no question but that we should have a vocational education law in the State of Illinois. The kind of a law that we should have I will not attempt to talk about, because I know very little about vocational matters; but I do know that some change ought to be made in the character of study in the lower grades of the grammar school departments. The boy and the girl who can afford to go through the grammar school and is unable to attend the high school or the college, ought to be better fitted to start out into business or the commercial world.

Some change ought to be made in the character of study so that when our boys and girls, at the age of fourteen or fifteen or sixteen, are turned out into the world and cannot afford to continue on in school they should be better able to take up the problems of life.

Regarding vocational education, I would say to you people in Illinois who are interested in having a law enacted, that you get these conflicting elements together, that you get these representatives of these organizations who are advocating it, the representatives of the boards of education of the city of Chicago, and the representatives of the boards of education of the other large cities of the state, to fit in with the representatives of the rural schools and with the superintendents of public instruction, and draft a rational law that will be for the benefit not only of Chicago, not only of Peoria, not only of Springfield, but of every school district in the State of Illinois; and when you do that, when you get a compromise bill that is for the best interests of all, you will have no difficulty in having it passed by the general assembly, but if these conflicting elements continue to wrangle and quarrel, there is not time enough during the session of the general assem-

bly for the members to attempt to arrange these quarrels and work out a compromise bill among themselves.

And I say to you now, those who are especially interested, that you go to work now before any bills are introduced along that line, and see if you can't get a compromise bill that will meet the approval of all these elements. Then you will have some chance to have your bill passed, and I know that all the members of the general assembly will do everything possible to aid you.

I had the pleasure of appointing as chairman of the educational committee, an educator of many years' standing, now a farmer, a man who has served in the general assembly for a number of years and who had the approval and endorsement of the educational associations of the State of Illinois—Mr. Norman Flagg; and I know you will receive fair treatment at his hands, and as far as the speaker is concerned, he will aid you in every way possible in placing upon the statute books, laws that will be of benefit to the school children of Illinois and to the citizens of the State.

Mr. Chairman I thank you for this opportunity to come before you.

THE RELATION OF BOYS' AND GIRLS' CLUB WORK TO VOCATIONAL EDUCATION

O. H. BENSON

In Charge of Boys' and Girls' Work U. S. Department of Agriculture

Club work recognizes the importance of offering manly and womanly jobs to boys and girls and of making them demonstrators of achievement and good practice worthy of the best efforts of men and women of the community. Patronizing and assigning "kid jobs" to boys and girls never trains, much less appeals to, the aspiring spirits of youth.

Our best boys' and girls' extension leaders work with boys and girls, not for them or over them. Through club group work, boys and girls are given definite instruction and direction, instead of supervision and policing. Very few boys and girls need policing if given opportunities for the constructive direction they deserve.

It is just as important to set standards of achievement with activities of the farm, home and shop, as it is to give academic grades or set school standards of their achievement in studies at school.

Through club groups and their local leaders, members are given training for local leadership and are developed as co-operative units for the community. This type of extension education offers motive for achievement, for individual effort as well as for team work of the club group. Both are essential, the one cannot thrive properly without the other. Club extension work is staged by means of contests, related plays, ownership opportunities, head-and-heart interest in work that proposes the pulling of "stingers" out of toil and transforming drudgery into interesting work and oftentimes by this method work becomes play.

Club work teaches and directs boys and girls in home projects through group or co-operative reinforcement, and thereby trains in matters of thrift, cultivates economy, and through net profits on investment, proper values are better understood by the members.

The proper use and saving of a dollar must be preceded by the earning of the dollar. Boys and girls in this type of education are taught to earn, not to beg, nor sell tags, and that asking something for nothing is ignoble. Club project work on a profit-making basis is a manly job and educates young people to invest their best talent in constructive and productive work, and to appreciate more fully the op-

portunities of the farm and the home. Agriculture and home-making to club members become fundamental reasons for the necessity of a broader education.

Club work teaches that production must always precede consumption, and that by-products may become net profits to those who learn how to conserve them properly. Club projects teach business methods and management of farm-home enterprises and that every enterprise must contribute to the sum total of the efficiency of the unit—the farmstead and the community.

Club work is a definite back-to-the-home education which recognizes the duties of leadership to the home first. Schools and teachers belong to the home of the community. It is important that the school co-operate with the home more than that the home should deliver itself to the school.

Boys' and girls' club work, as carried on by our most efficient leaders, seeks to develop within the club group the co-operative qualities that make for the much coveted community; that is, the members of the club working for the group and for the benefit of the whole community, as much, if not more than, for the individual.

An important extension principle involved in club work is that extension leaders enter the home by way of the back-yard and the back-door, and that the child be permitted to become the official guide to the kitchen, the heart of the home. Once in the kitchen, it is quite possible for an extension leader to serve most efficiently the interests of the entire family. They are not refused co-operation, deceived, or restrained from doing efficient work because of entrance via the front-door, with its parlor etiquette, with its deceit, superficialities, and powder trimmings.

Club work should be not ruled by the forcing of formal school or academic credit upon it. The fact that it is now an elective home project, a program by a club membership outside and apart from the regular course of study in the school, is what gives it the freedom and genuine attractiveness for boys and girls. When once recognized in the particular course of study of our public schools, and without paid leadership for summer vacation periods, the boys and girls will quickly lose their present keen interest in the work and feel that it is an imposition to make them work at school duties during their entire vacation time. There are other ways for the schools and teachers to recognize and more properly encourage the work. Achievement merits, badges, medals, may be given by school officials, and achievement day programs held every year in early fall, not only serve to give recognition to those who have achieved and set notable standards of ex-

cellence, but the club group and its work becomes in this way an effectual extension arm of the public school, a more potent factor for good to the school work, than if subjected to the usual academic measurements. Educators are not interested so much in what the club will do for them and the school plant, nearly so much as they are interested in making the club work a medium through which home and the community strength is developed, an opportunity also, for the immediate translation of class room English, Mathematics, Physiology, Home Economics, and Agriculture into forms and terms of daily life, and in this way it will take the school to the homes and in turn will give the homes up to a more wholesome co-operation and reinforcement of the school.

I am glad that we are not teaching schools any more, that we are teaching and leading communities. We are not teaching text-books nor subject-matter, but boys and girls.

Homes were builded, children added, before the schools were necessary. It then became necessary to have schools, not because it was necessary to send the home to school but because it was necessary to have a common distributing point of community efficiency. The school is not essentially the social or community center but the distributing center of the community efficiency.

Of course, school houses should be open every day in the week, including Sunday, if necessary, not only for public school formal work, but for any other community interests, but we believe that it is just as important for the clubs, group meetings, associations, etc., to transfer the center often and meet around in the community, at the churches, the grange halls, or other convenient places, thus shifting occasionally for the good of the community this distributing center, that this may result in a better appreciation of the community needs. A procedure of this kind is always bound to reinforce and strengthen more definitely the public school, in its course of development, very much more than if a selfish academic program was to center everything within the four walls of the school to the exclusion of the home and other conveniences.

There is no greater need in America today than a thrifty homeward-bound education. We invite you to a serious and thoughtful study of the boys' and girls' club work as one of the efficient factors for this homeward-bound education. It is now a definite and permanent educational force backed by permanent appropriations by both Federal and State law-making bodies. It is, as a noted writer put it, "an all American movement with an education philosophy distinctly American as well as modern."

BOYS' AND GIRLS' CLUB WORK—WHAT IS IT? —COMMON SENSE

O. H. BENSON

U. S. Department of Agriculture

A farmer boy works ten hours a day, plows and cultivates the earth, feels no sense of ownership, has neither heart nor head interest in his work—That's drudgery.

A farmer boy gets up early in the morning, works all day, has no partnership with father, no chance of recreation, is denied club fellowship, has no ownership in crops and animals, such as, corn, baby beeves, pigs, or poultry—That's tough.

A club member takes a few grains of seed, manages them through soil, environment, insect and plant diseases, and produces vegetables, not profits that win the prize at the club festival or the State Fair—That's skill.

A club leader writes a few pages of instruction on worthless pieces of paper, puts them into the hands of a club boy, and thus guides him to a business profit of \$50 in a single season—That's a good investment.

A club member may take an idle piece of soil, invest it with thirty cents worth of seed, a dollar's worth of fertilizer, and a few hours of brain and brawn, and make a net profit of \$150—That's capital born of achievement.

Fathers and mothers maintain active membership in lodges, clubs, associations, societies, guilds, smokers, and unions, but fail to see the need of encouraging club work for boys and girls—That's unfair.

To give boys and girls manly and womanly jobs, membership in a club of their own, a feeling of ownership, an opportunity to do things, a real motive for study and achievement, a feeling of liability; in short, a co-operative interest in the whole business of home making and farming—That's common sense.

COMMERCIAL EDUCATION

LEVERETT LYON

Assitant in Organization, College of Commerce and Administration
University of Chicago

Mr. Chairman, and members of the Convention:

Yes, when the strong arm of the law laid its hand on Dean Marshall and restrained him from coming here, he called me up and asked me if I would come down and take his place, I told him I would come down and occupy the place he was supposed to occupy, but so far as giving you the message he could give you, it would be a very poor substitute that I could make. I knew, however, that any disappointment that I might feel being here in his place would be small as compared with the disappointment that you would feel in finding me here in his place. I thought that the feeling you would have was something akin to that of the little girl that a grade school teacher of mine tells about, who, when she was first told she was going to go to school the coming fall, was very much pleased and very enthusiastic. She told all of her friends that she was just going to start to school next month, and every one that she told it to told her how nice that would be, and said, "Well, you are going to start to school, and I suppose you will learn your A B C's." And she mentioned it to some one else, and they would mention much the same thing, until the A B C's had come to be with her a sacred fetish. The first morning after she got to school, after the teacher had arranged the pupils in the way which she wanted them placed, she said: "And now we are going to begin with studying the A B C's." And the little girl was all alight with enthusiasm and anticipation.

The teacher took a piece of chalk and put on the board a very ordinary looking "A". "Now children," she said, "That is "A". The little girl looked attentively at it, looked at it again in a crestfallen way, and then breathed out loud: "My God, is that A?" And so, I think your feelings in finding me here instead of Dean Marshall must be somewhat akin to hers. At any rate, I know you are much more interested in hearing his notions on commercial education than you are mine, and for that reason I shall take the liberty to read, so far as I can, from things that he has said or written along this line. It happens that at the meeting of the Western Economic Society one or two months ago, at the University of Chicago, he prepared a paper on

somewhat the same topic, and I think the first page or two of that gives the suggestion of the basis on which he would place all commercial education. And I am now reading from the first paragraph or two of that paper:

"Clearly defined reasoned curricula of business training cannot be evolved until some standard of valuation, and not necessarily the same standard under varying conditions has been set up. It is well enough to say that a business man should have a knowledge of statistics or accounting or of law, or of any other subject, and a case may be presumably made out for all of the subjects but if a curriculum is to be drawn up, and certain courses are to be designated as required, and others as elective, and if this training is to be completed within a given time, it is clear that the question, how much time shall be given statistics, how much to law, how much to accounting, as compared with other subjects, becomes a pressing question. And it is equally clear that the answer must be determined on the basis of relative value. Some standard of valuation must give us answers to such questions as these that follow. What, if any, are the absolutely basic things which should be included in a business training? And why are these things to be regarded as basic? The second question is this: Granted that the basic training had been scheduled, what if any, are the more important pieces of collateral training and how may we determine the importance to ascribe to each? And, third, assuming that only a given period of time is available for the training of our business men or business managers, how shall we apportion this time among these basic and collateral subjects." Those three questions he puts as basic to consideration of any problem in commercial education.

"There are, of course," writes Dean Marshall, "many methods which may be used in arriving at any standard of values. The following is one method: To try to secure a generalized statement of the tasks or functions of the business manager. If this function is susceptible of analysis in somewhat definite parts, the organization of the curriculum is well under way. What the business manager does, is what we must prepare him to do, and a clear analytic knowledge of his operations can hardly fail to suggest the lines of training which will enable him to operate efficiently; even more, it will throw much light on the relative importance of various elements of that training."

I am turning to a further paragraph in this same paper, and adapting it somewhat to the particular circumstances:

"The problem of the business manager, or the business man is in a sense at least, made up of four over-lapping, interacting determinants—possibly these might be called variables. In the first place, the busi-

ness manager is concerned with what we might call technical matters. Let me elaborate on what I know he implies by that term: The modern business manager has much to do with technical considerations. The development of such sciences as physics, chemistry, physiology, geology has made available for practical application a great store of technical knowledge. The industrial revolution, the latest and the current chapter in the intervention of capitalism, has placed upon business management the responsibility for the conduct of the proceeds of production on a large scale—group labor operated with machine industry. It is no longer humanly possible for the business manager to know all the technique of all the processes of production under his supervision, but inasmuch as most businesses are concerned so largely with technical consideration, it is necessary that he shall have at least an intelligent understanding of the technical consideration of his business."

Now, of course, as I know he means to imply in this paragraph, no one can be equipped for business training, and for business management without at least enough technical knowledge to give him a reasonable understanding of the technical processes that must go on in relation to that business. Here is an illustration that he has used in this paper, and one which I know he thinks illustrates a situation admirably.

"Suppose," he says, "that the trustee of some great endowment fund should go to a business man with this proposal: 'We intend now to free you of everything excepting consideration. We are going to supply the money, take any grade of land, any grades of labor, any of the present forms of capital goods—take any or all of them, any quantity that you choose, and with this money, this land, this capital, this labor, work out the best and most efficient combination; that is, there is, a technical problem for you; the arrangement in which those can best be placed relative to each other to get results. That problem confronting the business man is in itself a staggering problem, even though the business manager, the production manager, if this were a manufacturing business, could summon to his aid the fruits of generations of development in mechanical engineering. Similar problems to this have their bases in technical consideration other than those of mechanics and will occur to any one. Every manufacturing business finds technical problems among the largest of their problems. There is probably no business that is entirely free from them. But now every business manager finds himself confronted with another variable besides these technical problems which makes the problems before him tremendously more difficult. No trustee of a great endowment fund comes to him and says, 'take lands, labor, capital in any form that

you like.' He is confronted at every turn by the matter of value and price. Instead of choosing freely what he wants, he must determine his selection on the basis of what he can get at the prices he can pay. His whole problem is, through and through, shot with the question of value and price. At the price which he can pay, what is the best grade of land, the best quality of labor he can secure? Still further complicating this business man's problem, this technical problem which is already greatly complicated by the matter of value and prices is a fourth variable, and one which is too often left out in giving consideration to business problems. That is the question of social environment. "The modern business man"—I am reading now from Dean Marshall's paper, "Is not conducting his business up in thin air; nor is he located on a desolate island. He is in the midst of organized society, and his operations are subject, more than he is likely to realize, in our individualistic regime, to what we may call social control. Perhaps an illustration will make a little more clear what is involved in this term, and how it affects the business man. Suppose that the production manager of a plant should come to a general manager with this proposition: He would say, 'I have worked out a scheme whereby we can double our output, and more than double our profits. There will only be necessary one change in our present scheme of organization. That will be the employment of child labor.' Profits, of course, are the thing for which a modern business manager is working under our capitalistic pecuniary society. Does it follow then, that he will follow the suggestion of the production manager and install this new method with child labor? It is perfectly obvious, of course, that he will not, because the laws of the State forbid the employment of that kind of labor. Or, suppose the change that was suggested was the operation of all employes for sixteen or eighteen hours a day? Does it follow that the business manager will conduct his business on that basis, even though his profits will be doubled or trebled? Obviously he will not, if the laws of his state or his country forbid his doing so. In other words, he is hedged about in all of his operations by social control. The social control that I have just illustrated is what we have termed commonly, formal control, of which law is the best example. But that is only the beginning of the forms of social control which hedge about the business management, and make problems difficult and complex. Change the illustration: He finds his advertising manager suggests to him that his profits can be doubled, and his output increased tremendously if he will utilize a certain form of advertising. Now, does it follow at all that the general manager will adopt this advertising and sales policy that has been suggested? There is one thing at least that will forbid

it, if it happens that this policy is contrary to the code of ethics of the Associated Advertising Clubs of America, and this man is a member or interested in following the dictates of that organization. He finds that here is a kind of informal social control that will forbid his taking that action—custom is a form of social control. The ethics of the business club to which he belongs, the dictates of what is good form, and what is not good form, of the particular social set in which he may happen to travel, are forms of social control, informal, but none the less binding than the formal law and other types which are instantly recognized. This is another type of social control which is worth more care, perhaps, than the other two. No business man can transact business alone—that is, it is necessary that he shall use the type of banking that facilitates, the type of financing organizations that he can find in his community. The extent of his activities and their character is entirely limited by the kind of commercial organization which he has to market his goods. If it is good, he is benefitted. If it is poor he suffers. In financing his business the same problem confronts him. And in dozens of other ways that one might point out, he is limited by the social environment in which he finds himself. It is obvious, then that the adequate training for business cannot leave out of its curriculum some information, some knowledge that will enable the business manager to deal intelligently with these factors of social control which so largely limits and conditions his activities. There is one other variable in the problem that confronts the business man. That is the variable of constant change. Whatever the technical processes may be, under which his business is operated, whatever the value in price may be that are conditioning his activities, and whatever the social control that is limiting his actions may be, these do not remain fixed. They are subject to constant change, and the penalty for not being cognizant of that change, the penalty which is meted out to the business man, is—failure.

As Mr. Marshall says in one paragraph in this paper, "Woe to the business manager whose training gives him a conception of business problems as static."

It is possible, then, in a general way at least, to analyze the problems of a business manager, or the business man in the two types of problems: Those which we might call internal problems, and those which we might call the external problems of business management. The external problems are of course, speaking largely, of two kinds, the problems of technique, that is, the processing that is going on within his plant or factory or organization of any kind that he has, and the other internal problems, the problems of internal management, the re-

lation of his various processes to each other. In social environment which surrounds it, and remember that social environment means formal, such as law, informal such as custom, ethics of business clubs, and also the commercial organizations with which he must deal if his business is to progress. The problem, then, narrows to something like this: Commercial education must include at least training which will fit the business man to deal with these internal problems of business management in their various aspects, and to give him an intelligent appreciation of the external problems of business management in their various and commercial aspects. The question then arises, can a training to fit for that situation be given? Perhaps the best answer to that is found in this: Business, at least in the present type, business for profit as it is carried on now, is a comparatively new thing. In Anglo-Saxon civilization it is only four or five hundred years old. And ever since business has been carried on for profit there has been a training, both in the internal and external problems of business management. For the very large part of our history of modern business that training has been carried on through the system of what is known as apprenticeship. To go back to the type of the craft guilds is all that is needed to see that this is true. One ordinarily thinks of the system of apprenticeship under the guild system as a training very largely in the technique of business, but training of the guilds under the system of apprenticeship was very much more than that. One ordinarily thinks of reading the old indentures which read something like this: "The aforesaid John Gibbs and Agnes, his wife, agree to take the aforesaid Thomas Gott and train him, teach him in the performance of their craft of fishing as well as they may do. Signed by the aforesaid John and Agnes Gibbs." That is, to train him in the merely technical end of that business, but training in apprenticeship was something vastly bigger than that appears, if we consider for a moment what the guild really was. It was much more than a school. The guild did not train people to fit them into the technique of some business, and then turn them out to find a livelihood wherever they might. The guild trained these people essentially for one thing—to make them business managers. When they were through with this technical training they were accepted as masters of this craft. That is, they became business managers, and as masters of their craft they were engaged not only in the technique of that craft, but in the buying and selling process as well. In this training of apprenticeship, as all of you are undoubtedly aware, the master craftsman in whose charge the apprentice was placed, had full control over his apprentice. He brought him up in all the traditions of the craft, and the traditions of the craft were much

wider than merely the technical knowledge of that craft. That is, we find that the craft was, among other things, a religious organization and the moral training of the apprentice was carefully looked after. The craft in addition to that, was in many cities a political organization, and in all cases it was a political organization to a great extent, so that the training of the apprentice as a citizen was carefully looked after. But in these external problems of business management, what was the treatment of the apprentice? Why, we find that the craft regulated all of the problems, at least many of the problems which we now find in different form is being handled by social control. That is, the craft fixed the size and quality of the goods which were produced. Now of course where that is done at all, we usually leave it to one or two forces, either competition, to bring about good production, or else to law. A pure food law was not necessary under the craft regime, because the craft passed resolutions concerning that, and it is a simple matter to find in the old records of the early English towns rules to the effect that if the aforesaid craftsman should put too few threads in a layer of cloth he was subjected to severe penalties, to be paid not to the government, not to the state which was passing the legislation to require him to make his goods up to date, but to the guild itself. In other words, the guild was an organization which set down specific regulations for the benefit of the customer, which regulated the size, the quality of the goods that might be produced and sold under a certain name and grade, regulated the price at which the work might be given, regulated the relationship between one guild to another, in other words, attempted to carry out the warning in these external problems which we now find in quite a different form. But of course, although the apprenticeship training was adequate for external as well as internal problems, under a simple form of industry and commerce, that simple form of industry and commerce was not to last forever. There came what we commonly think of as the beginning of the modern era, the coming of printing, the invention of gunpowder, the renaissance, the Reformation, the geographic discoveries, all of which culminated in that industrial commotion that is commonly called the industrial revolution. And growing out of that came a vast change in the conditions of business, and although in their essential name of external and internal problems, there was a change, the name of these problems changed very decidedly, and as a result, apprenticeship broke down as a method of training, so that the question which now really confronts any interested in commercial education is this: Can we, under our present system of large scale, complex industry, find a substitute for the old apprentice system which shall train in external as well as in-

ternal problems confronting the business manager.

I have here a few pages of a letter which was written to me by Dean Marshall at one time, and from which I can take certain cuttings, and with some adaptations and amplifications, give what I think is an answer to that particular question. Perhaps I am misusing the term "letter,"—it is somewhat of a more or less official communication at the university.

"But if the apprenticeship system was doomed what was to take its place? We do not yet know in detail the answer to this question. We are in a period of transition, such perhaps as the world has never seen before. Industrial processes, commercial methods, social relationships, are frequently revolutionized in astonishingly short periods of time. As was to be expected under these circumstances, there was and still is a period of more or less blind experimentation with reference to business training, and in this experimentation certain experiments frequently secured undue significance through the process of imitation. The development that has occurred has been conditioned in large part by the balance and interaction of forces at work in the business and scientific realms. These two things have constantly played upon each other in the business education that we have. The industrial revolution has brought about a tremendous increase in production capacity and business enterprise. Great as was this increase, however, the market expanded at even a greater rate, so that for, say, a century the pressure upon the business world was upon production rather than administration and distribution.

Although this was true for the first half of the century following the industrial revolution, that is, that the market out-ran production, and the question before business men was this—how shall we get goods produced fast enough? The latter part of the nineteenth century was to see the situation reversed. And although the matter is referred to a little later, that is what is now bringing the stress on commercial education. Following the industrial revolution the market was wide, and productive processes, although under the influence of science rapidly gaining in strength, were still inadequate to supply the market. The latter part of the century the situation has been reversed and now we are finding interest centering more and more in commercial education, marketing processes, distribution processes, insurance, all of the things that are engaged in marketing goods. The methods of training for business grew out of and kept pace with this changing emphasis of business problems, the developments in the exact sciences, and the changing views with respect to social relationships. For a long time there was little or no conscious deliberate train-

ing and preparation for administering the external problems of business management and rapidly developing resources. Let me say that again—For a long time following this sudden change in the methods of doing business after the industrial revolution, or, rather, in the early part of the industrial revolution, (since we are still in the industrial revolution) for a long time there was little or no conscious deliberate training for administering the external problems of business management; that is, these matters of relationship to other people. Rapidly developing resources urged by an expanding market to even more rapid development, drew attention to the internal problems of management and our prevailing attitude of *laissez faire*, let people alone, individualistic outlook, was not calculated to set up any counter attractions in relation to these external problems. It was by accident rather than design, as a matter of fact, that the basic material in training for these external problems began to receive some attention in private and public schools, under the guise of courses in government. You will remember that it was about the time that the Declaration of Independence was drawn up and the Constitution of the United States followed a little later. People's minds were interested in government, and under the guise of courses in government in this early period of industrial revolution, law, government, political economy and later, sociology and social psychology, began to be taught in the schools, and it is to these subjects, originally put in for courses of government, that the schools of commerce are beginning to look for their material for courses in the external problems of business management. It remains, then, for our generation in working in business education, to mold this material into form better fitted to the use that we have in mind. That is, its adaptation to business problems. And so we see already that schools of commerce are beginning to announce social problems of business. And other schools are beginning to make requirements in psychology, government and ethics. But while these external problems of business management were being postponed or at least dealt with only indirectly, training for these internal problems was given very definite attention. The increasing scale of operations brought about by the machine regime of industry quickly drew attention to matters connected with the technique of administration, with the result that along in the '30's and '40's there was started the movement that we commonly think of as the technique of business administration, that is, those courses in penmanship and accounting, definite training in that type of office management which was later copied by the public schools. Of course at first it was begun privately because a few private individuals saw the possibilities of making money in that

sort of thing; later copied by the public schools; and even today under considerably changed conditions it makes up the backbone, at least, of secondary training for business in all except the distinctively progressive high schools. We have seen that problems of production were also pressing in the century following the industrial revolution. Training for this aspect, that is, the production processes, took a little different turn. Because of the relationship of such problems to the material long developed in the physical sciences and rapidly being developed in the biological sciences, this phase of the work was taken over by schools of technology, and as a result we saw springing up all over the country schools of mining, agriculture and engineering. That is, schools whose real problem was dealing with a big phase of the business man's internal problems of management. And in these private business colleges and later in the high schools, we found, of course, courses starting dealing with another phase of internal problems, what we might call facilitating course, facilitating administration. Even in these technical schools, schools of mining, engineering and agriculture, there began slowly to be an appreciation of the fact that fundamentally they were dealing with business problems, and as a result of that we find that later some of them began to put in courses of political economy, even courses of accounting and statistics and course dealing with the outstanding structures of our industrial organism, and in some cases they went so far as to require a fifth year of work, in which this type of problem dealing with external problems of organized administration could be taken. But as I said a few minutes ago, in the second half of the nineteenth century, these internal problems of production, still of great importance, began to yield to problems of distribution. The emphasis of that particular point was borne upon me very strongly once by talking with a wholesale hardware man. He said "the only reason that I am not very rich is because I was born just ten years too late." I asked him if he would explain how that had anything to do with his financial situation. "Yes," he said. "I have forgotten the number of years ago, but a number of years ago, I went to work for one of the largest hardware houses of St. Louis. I really got there in time to go very fast, but if I had been there ten years earlier I could not have failed to have been a very important factor in that organization. Not because I was a man of any particular ability, I have average ability, and nothing more, but the market of the West was so gigantic at that time that this particular distributor could not find men enough to take administrative positions. Our one job, as he put it, was to get the goods. The market—there was nothing to that. Anybody, he said, who could smoke stale cigars and tell an unsavory

story and wear a red tie could go out and sell goods. Those were the days of the old commercial salesman, the old drummer. "But," he said, "that thing has changed. Now we find that our problem is not alone getting the goods, it is finding the market." And so, as we have said here, in the second half of the nineteenth century, the problem of production, while still of great importance, began to yield to the problems of distribution. A corresponding problem occurred in training. Existing organizations began to add courses in advertising, salesmanship, and now a new institution has sprung up—the College of Commerce, retaining naturally the old courses dealing with administration technique, but retaining courses concerned with distribution and utilizing courses in political economy, government and law which gives some appreciation although as yet a very poor one, of the structure of industrial society. The situation in 1916, then, is curiously mixed. The trade school, corporation school, the continuation school, are providing training in technique. The private commercial college and the corporation school and secondary school are providing training in administrative technique, and a few of these institutions in their curricula, courses dealing with problems of marketing, problems of production and problems connected with the external problems of business management. As yet there are few courses dealing with production, and preparation for external problems has seldom gone very far. That is, even in schools of commerce, there is still an inclination to give the old courses in government, in law, that were designed not essentially for business men, or for people who were training for business, but were designed essentially as training in government administration. The school of technology, and some corporation schools are giving particular attention to the problems of production. Of course that is well taken care of in our schools of technology and engineering. Of these the most progressive are under the influence of scientific management, and are organizing and borrowing courses of administration, and usually without really seeing the implication of their action, are making use of material which has to do with an understanding of their social environment. The collegiate schools of commerce, or whatever they may be called, have in the main fallen under the influence of political economy, I suspect because political economy, although developed to train people for governmental work, has some business about it. Classical political economy, with its natural order of philosophy of social relationship, with its attitude of taking theories, based on eighteenth century facts, is the touch-stone of twentieth century administration. These collegiate schools of business training have seldom a curriculum based on any comprehensive philosophy of the problems they are attacking.

There is, has been and has to be a policy of opportunism. They have borrowed, they have utilized, they have compromised. Their chief merit has been that their presence is a recognition of a real and very big problem. And by force of circumstances, they have more or less unwittingly given material useful for administering the external problems of business management. The great hope in their present situation is that they give unmistakable indications of an intention to deal with the problems as a whole and in a coherent fashion.

TRAINING TEACHERS FOR VOCATIONAL SCHOOLS

L. D. HARVEY

President Stout Institute, Menomonie, Wisconsin

Taken in a broad sense the vocational school is one which undertakes to give people special preparation for successful practice of an occupation, a business, a trade or a profession. In this sense the medical school, the theological school, the law school, the school of commerce, the normal school and the trade school are all vocational schools, I take it that it was not the purpose of the committee in assigning me this topic that I should attempt to cover the entire field, but that the discussion should be limited to the consideration of the training of teachers for vocational schools organized to prepare people for efficiency in industrial occupations. The field is still broad when thus limited, because of the possible variety in purpose and the scope of the vocational school in the industrial field. Success in any industry demands the mastery of four distinct types of knowledge, and skill in the application of each of these types in the development of the industry. They are:

First, a knowledge of the conditions affecting the industry—such as extent and permanency of the demand for the product, availability of the raw material on a competitive basis, transportation facilities, dependence of the industry upon the stage of development of scientific knowledge, and the extent of that knowledge available, the character and extent of available labor supply immediate and prospective, character and extent of probable competition; if the industry involves the production of a patented article or the use of patented machinery, the rights of the concern under the patent laws. This does not exhaust the list but it is sufficient to indicate the character of the knowledge of conditions upon which the success of an industry depends.

Second, a knowledge of what is essential for successful organization of the various activities demanded by the industry. This involves the proper selection and arrangement of machinery for the greatest economy in operation, the handling of raw material, the development of an effective office force, the establishment of a proper selling agency, the routing of work through the shop in the process of manufacture, the provision for adequate supervision through foreman, superintendents, assistant superintendents, etc., and the providing of such other

factors as may be necessary to secure the greatest efficiency in the use of material, machinery and labor.

Third, a knowledge of what is essential in the proper administration of the organization.

Fourth, a knowledge of industrial processes in the use of machinery and tools, and skill in applying this knowledge in transforming the raw material into the finished product. The larger the industry, the more largely are the various activities growing out of these four types of knowledge differentiated. In such an industry, by far the larger number of people employed will be concerned directly with the industrial processes and will have little or no responsibility for initiative in any of the other three types of knowledge and corresponding activities. A much smaller number of men will be concerned directly with the administrative side and a still smaller number with the knowledge essential for the organization and understanding of conditions under which the industry may be made successful. To go to the other extreme, where the single individual is the producer; he needs to have a mastery of each of these types of knowledge and of the activities growing out of them. The problems of organization and administration in such a case are reduced to a minimum. With the growth of the industry these problems become steadily more complex, and the necessity for men trained as organizers and as administrators becomes greater.

From this analysis of the elements for success in an industrial enterprise it becomes evident that there is a necessity for a definite class of vocational schools or at least for a definite type of training to fit men as organizers and as administrators. The wrecks of industrial enterprises as shown by the records of bankruptcy courts, in which failure may be traced to a lack of knowledge of the conditions affecting the industry and of proper organization and administration, indicates very clearly the necessity for vocational schools that shall undertake to train men as industrial leaders. The failure of other enterprises through lack of efficient and conscientious workmen, indicates the necessity for vocational schools to develop a higher type of workman dealing with industrial processes.

In this country the discussion for the needs of industrial education, both for the industry and for the individual, has been confined almost exclusively to the necessity for improvement in the process worker. This is but natural because of the large number of these workers and because in the development of the industries in this country, in the great majority of cases the organizer, the administrator, has started as a process worker and by reason of native ability, ambition and opportunity, has reached the more responsible position. The time is coming

when we shall realize the possibility of developing this type in greater numbers and to a higher degree of efficiency through definite, well organized instruction and training for this particular type of effort. At present, however, the necessity for reaching the great number of those who enter the industries as process workers is becoming so apparent that for some time it is probable that educational effort in this field will be largely confined to the development of ways and means to make the rank and file of industrial workers more efficient as workmen, not primarily for the benefit of the industry, but for the benefit of the individual as a man and as a citizen, the benefit to the industry resulting as a consequence of bettering the conditions of the individual. If these conclusions are correct it seems desirable to still further limit the scope of my paper to the consideration of the training of teachers for that particular type of vocational school which undertakes to prepare people to work more effectively in shop or factory. In this class of vocational schools involving the use of the hand, the teaching should be of three types:

First, that teaching which results in motor efficiency in a particular vocation; second, that teaching which results in the mastery of collateral knowledge relating to the necessary motor efficiency and which enables the learner to understand the when and why of particular motor processes; third, that teaching which results in the necessary knowledge, awakens and strengthens impulses and desires, creates ideals essential for good workmanship, good citizenship, self preservation and improvement. The type of vocational schools just suggested has to deal with two distinct classes of people, first those now employed in the industries but who are not yet skilled workmen; second, those too young to begin a regular apprenticeship in an industry but who have decided upon a vocation for which they wish to prepare. In this class there may be some who have found employment in unskilled labor or low grade jobs leading to nothing better, and temporary in character.

Vocational schools may therefore be either continuation schools for the individual who has gone to work in an industry either as an apprentice or a helper, or in unskilled and temporary employment, in which school instruction is limited to from four to eight hours per week; or the schools may be all day schools in which instruction is given for six to eight hours daily. This limiting the vocational school to those who have already entered upon their vocation and to those who have selected it but have not entered upon it is an arbitrary classification and perhaps not well founded.

We have a type of schools called pre-vocational, in which the idea

is to introduce the pupil to a variety of hand work, not primarily for the purpose of developing general skill in any particular vocation but for the purpose of developing general skill of hand and a certain industrial sense, which means the power to think in terms of materials, tools, processes, means and ends, which gives him an opportunity to make an intelligent choice of a vocation with reference to his ability and aptitudes. As a result of his work in this prevocational school he may decide to choose as a vocation one of the lines of work in which he has been given instruction and while we have called it prevocational schooling up to the time the choice is made, it is evident that what instruction he has had in that particular line, has been for all practical purposes, education for a vocation which he has finally chosen. Had he decided upon his vocation before taking any prevocational work and had entered a vocational school for the purpose of getting the necessary instruction, he would have had practically the same instruction and training that he should have had in this particular line in a prevocational school and the kind of teaching at that stage would be the same.

I have indicated three lines of teaching as essential in the vocational schools. These three lines of teaching are distinct in character and content and therefore it may be possible to have three distinct types of teachers, each a master of one of these fields, and involving some acquaintance with each of the other fields. If the school is small, with but a single teacher, he should be prepared to give instruction in each of the three lines, but in the large city where the school is larger with many classes and teachers, it is possible to differentiate the work so that different types of teachers may be employed with better results than would follow if it were expected that each teacher should give the three types of instruction. The vocational teacher who has to give the type of instruction resulting in skill of hand in a particular vocation must be master of the processes employed in that particular vocation and which he has to teach. This means that a teacher of a trade process must be master of that process but it does not mean that in order to teach that successfully he must be master of every other process known to the trade. If this were so it would be extremely difficult to find skilled workmen, masters of every process of their trade in sufficient numbers to give the very limited range of instruction likely to be offered for some time in vocational schools. He needs to know that all skill of hand is based upon right forms and order of mental activity and he needs to know what these forms are and what their proper order is, and he ought to present his material in such manner as to invoke the proper form of mental activity and its correlated form of

motor activity. He needs to know that he is not simply a workman interested in production of inanimate objects for the market, but that he is an artist and his art consists in so playing upon the sensibilities of his pupils as to develop in them the power to produce a given product in perfect form with the greatest economy of time and effort. The plumber who can wipe a joint successfully has one element for the teacher of plumbing, that is, the knowledge of a process. If he is a joint wiper he may be prepared for his job but if he is teacher of joint wiping, he is not prepared for his job unless he understands the art of teaching. He must know by what process knowledge is developed in the mind of the learner and how to so present his instructional matter as to bring into action these necessary mental processes. He must be able to analyze the process into the various essential steps and must realize the best possible order of these steps, and know how to present in the best possible form each distinct step in such a way as to develop in the pupil's mind a clear knowledge of the how of that step, with the resultant expression of that knowledge through the work of the hand. He must understand that his pupils come to him in different stages of preparation and with different capabilities, aptitudes, and temperament and he must know how to reach each individual most effectively. This means a study of the human being, and takes the teacher into a field entirely different from that he occupies as a skilled workman in the industries. Without these qualifications the pupil learns from him in only one way, through imitation, and his mode of presenting it may be such as to make imitation very difficult because the greater his skill, the less appreciation he is likely to have of the ability of the learner to assimilate through imitation that which he has acquired through years of practice. He must understand the principles of school management as applied to the handling of classes, and groups in a class, and of individuals. In this type of instruction the amount of strictly class work is very limited. The instruction must be given in the class room or shop. There is little or no opportunity for study or advancement outside of the instructional period. The capabilities of pupils vary greatly and accordingly the rate of progress of the different individuals in the school varies, with the result that even though at the beginning, the instruction may be designed for the class as a whole, it very soon develops that it must become instruction adapted to single groups, or still more likely to individuals. The effective handling of classes of pupils under these conditions requires a high degree of professional skill as a teacher and manager, the type of ability not necessarily accompanying in any degree the ability of a skilled workman.

The manufacturer is very insistent that no man is competent to

teach in any vocational school who is not a master of the processes he teaches, and he is entirely correct in this view of the situation. The intelligent school man is just as insistent that the teacher should know the art of teaching as well as the subject he teaches, and he is entirely right in his position.

Because a man learns a trade in a shop or in a number of shops in the course of a number of years, it does not follow that this is the only way or the best way to learn a trade. Improvement in shop processes has been brought about because there have been some men who have not been satisfied that the existing process was the best possible, and as a result of their thought and experiment new and better processes have been developed. The same thing applies to the learning of a vocation. Improvement in learning is the result of thought applied to processes and one of the results of that thinking is that some men are coming to see that a shop organized for successful commercial production is not organized for the purpose of teaching men processes, and therefore is not likely to exemplify the best methods of teaching these processes. It is one thing to produce for the markets successfully made products, and it is another and quite different thing to produce for the industries skilled workmen. It follows therefore that the teacher of trade processes in a vocational school, in addition to a thorough knowledge of the processes he is to teach, must have professional training to fit him for his vocation as a teacher. It is true that there are people who seem to have intuitively the kind of knowledge, mental attitude, and insight which renders them effective as teachers without very much special training but they, like angel's visits, are few and far between. The great mass of successful teachers in any line is made up of those who have studied the art of teaching. Many of them have learned it as the apprentice learns his trade, little by little, in an unorganized, unrelated way, but which may through long experience and practice, result in a reasonable degree of efficiency. They have acquired what mastery they have of this vocation through costly experiment upon those with whom they have had to deal. It is because these facts have been recognized that normal schools and the departments of education in universities and colleges have come into existence in all parts of the country. They are vocational schools for preparing people for the vocation of teaching; and for the industrial vocational school, there is the same necessity for thoroughly trained and successful teachers as in any other school. In fact, the limited time pupils are in attendance at these schools and conditions under which they attend, and the necessity for prompt results, all combine to make

the necessity for thoroughly trained teachers in such schools even greater than in any other.

One who knows the history of educational development knows very well that whenever a new type of school springs into existence to meet a new demand in education, it finds the effort handicapped by the lack of teachers adequately trained for the new line of work, and a beginning must be made with such teaching force as is available, but progress depends upon the rapidity with which skilled teachers for that line of work are developed. Men and women will not prepare themselves for a line of work not already in demand and which does not offer a reasonable financial return. That situation is emphatically true today in the attempt to organize vocational schools. We shall hasten their development if we create a demand for an adequately prepared teaching force. We shall hamper its development if we insist that anybody can teach in these schools provided he is a skilled workman in an industry. As I have said in the beginning, we must do the best we can for the teaching of processes; in the absence of thoroughly trained people we must take the best shop men we can find, best not simply as workmen, but best from the standpoint not only of workmen, but of intelligence and of comprehension of the work to be undertaken, of ability, of experience, of sympathy with those with whom they have to deal, possessing patience with the shortcomings of the beginner. We should undertake to inspire this class of workmen, put into the role of teachers, with the ambition to study the problems of the teacher from the professional standpoint. We should organize schools for the professional instruction of this type of teachers—a continuation school for them. Some benefit will accrue from such efforts. In many cases little value will be apparent. The professional teacher of these teachers must realize that in the main he is dealing with people who have had no systematic education beyond the elementary school, who have not been accustomed to dealing with professional ideas or ideals, whose thinking has been limited rather narrowly to their particular line of work, and therefore their instruction must be of the simplest nature, as concrete as possible, and given by people who are themselves sympathetic and who have a broad understanding of the limitations under which these student teachers must work. We must recognize that if we are to develop a system of vocational schools so that it shall meet the needs of the people of this country we must ultimately have as teachers in them men and women with broad sympathies and a broad education both technical and professional. The sooner we come to accept the German view point which it has taken that country fifty years to develop, that a vocational teacher must have at least a high school

education to begin with, and three years of technical and professional training to fit him as a vocational teacher, supplemented by actual experience in a trade, the sooner we shall put vocational education on a basis to commend itself to our best judgement and the judgment of the laborer and the employer. We may not be ready at this moment for so advanced a step as this but if we believe in vocational education sufficiently to pay for it, we can very soon demand at least two years of technical and professional training supplemented by shop work, and provision already exists for furnishing that kind of training. The added time that may be necessary as the system develops will be accepted as a matter of course. Still another kind of preparation may be employed which will furnish us a limited number of good teachers. I mean that type which will offer to men and women of superior type of mind now employed as workers in the industries, an inducement to give up their work and enter a school offering professional instruction, and technical and general instruction supplementary to their trade work, so that they may acquire a knowledge of the art of teaching which they can utilize in teaching the trades of which they are masters. The state can very well afford to assist such men in getting this kind of training. In either of these types of schools or the one mentioned earlier, there should be the kind of instruction that will fit those being trained for each and all of the three types of teaching I have mentioned, and from this class of people thus trained we should be able to secure men and women capable of organizing a vocational school system of a city and administering it well.

There should be formulated and organized for instructional purposes the body of knowledge required for the second and third kinds of teaching I have suggested as essential in the vocational schools. This body of knowledge is not now in form for instructional purposes except to a limited extent. When it is thus put in form, academic teachers employed now in regular public school systems may through specially organized classes receive training which will enable them to give that work intelligently and successfully. It should be offered in schools training teachers for city systems of schools so that those in training may have the opportunity to prepare themselves for this additional line of work.

The problem of the vocational school in the large city is somewhat different from that in the small city. In the latter case, the limited number of people seeking instruction in a given vocation will make the problem to secure adequately trained teachers a more difficult one than in the large city. The offering of courses of instruction in Normal Schools to prepare for the second and third kinds of teaching I have

suggested will do much to remedy this situation in the small city. Most of the teachers, even in the small city today, have at least a Normal School training and when there comes to be recognized the demand for this new kind of teaching, teachers will be prepared for it. The first type of teaching, that of the industrial process, will be more difficult to handle. In many cases, the best that can be done will be to take someone from the trades in the community, while in other cases the teacher of manual training who has had the right kind of preparation may be utilized for certain lines of vocational work. When it is recognized that there is a demand for this kind of preparation on the part of the manual training teacher and that it will carry with it adequate compensation, young men will seek such training and training schools will provide it. One other solution of the trade instruction in vocational schools in the small city lies in the employment of skilled traveling teachers who may serve the vocational schools of a number of cities, dividing the expense among them. The program I have outlined for providing adequately trained teachers for the vocational schools is not one that can be put into effect all at once in its entirety, but it seems to me it is one that we should look forward to, and not too far forward. If we believe in vocational training, we should believe that it is worth while. We should recognize that it will cost money and we should undertake to educate the public to realize that whatever it costs, if properly organized, it will pay large returns on the investment. We should not stand for makeshifts and sham work, but have the very best attainable. We should realize and make the public realize that this is a scheme for supplementing our educational system. That in the past our efforts have been to develop a system which beyond the elementary school has been adapted to the needs of the few and that no matter how well it has served that purpose, the great problem yet remains to give the proper kind of education to at least seventy-five per cent of our population. We must understand and make educational men and the public generally understand that the promotion of industrial education does not mean letting down of standards in any other educational field of effort, that it does not mean the lessening of support for existing institutions, but that it does mean adding to our expenditures for educational purposes, because of an effort to extend educational advantages to all the people and not simply to a small majority. That it means better men, better citizens, better living conditions, better workmen, better homes, better citizens, better appreciation of what education means, and more united and hearty support for every phase of education.

FARM LIFE AS EDUCATION

HERBERT QUICK

Federal Farm Loan Bureau, Washington, D. C.

Ladies and Gentlemen:

The educational value of farm life has in the past been pretty well recognized. A great deal has been said about it and it is sometimes astonishing to me that so much of human excellence, so much of human achievement and so much of everything which goes to make up our national greatness should have been ascribed in the past to farm life and no effort of any consequence be made to make more of it or to see whether or not there are not educational possibilities in it of which we have not hitherto taken advantage. It is after all not an accident that at the time when this nation stood highest in comparison with other nations, relatively I mean, and not absolutely, highest in everything which related to invention, discovery and progress, that the percentage of our people who were born and reared upon farms was the largest in the civilized world. We all know the reasons why farm life in itself constitutes a larger part and a valuable part of education.

It is a pity that some educations are confined to it instead of being developed further. The farm boy is at an early age put under circumstances which tend to develop character. So is the farm girl. The farm family is in itself an education up to a certain point. The boy who takes part in farm work, as all farm boys must, by and large, is at a very early age brought into contact with the natural world in the most interesting manner. His contact is that of a part owner of the farm. At a very early age he begins to be charged with responsibility with reference to it, and I think that there is nothing in the world which fits men for responsibility more than to have boys and girls charged with responsibility so long as those responsibilities are not crushing and daunting. The boy who goes forth with a team is responsible for a valuable piece of property in the team and the machinery to which the team is hitched. It is perfectly easy for him to destroy a harrow or to injure a plow. In addition to that, he is charged with the responsibility of the crop itself. He is taught that the accurate dropping of the corn in the row, making an accurate check, will be reflected in a larger yield of corn and easier method of culture all along and that next year's proper care of the family depends to a certain extent upon the way in which he discharges this day's duty. The girl

is obliged to study the animal husbandry involved in the taking care of fowls and calves and colts. She learns the veterinary science of the farm. She knows how to heal the diseases of the baby things placed in her care. Moreover she is given charge over her young brothers and sisters to an extent which is scarcely a prevalent thing in the city family. The oncoming of the season, the portents of the sky, the question as to whether or not tomorrow will be a fine day, the problem as to whether or not we will lose the crop by cutting it today or whether we had better postpone it until another time, the coming of the frost early in the fall, winter lingering in the lap of spring, the crop of nuts in the forest and its influence upon the supply of pork for the winter—a thousand things, charming, interesting, expanding, educating, filled with responsibility, these things crowd upon the farm boy and the farm girl and they fill the conversation of the fireside. They lighten up under a proper knowledge and understanding of their significance in the prosy converse of the family circle. They make, in an intelligent farm family, they make every evening and every meal a part of the educational progress of the family. I need not dwell on this. All of you who have been brought up in farm homes filled with intelligent people know that in no other part of your life was there such a leading forth of the qualities of the human being as is to found in farm life. All this took place always. It came down from the time when life was always a part of education and education always a part of life. It is of one piece with that period when the savage boy shot at a mark with bow and arrow and passed imperceptibly from a boy at play into a warrior at war or a hunter bringing home the food for the family. And it is for the sake of bringing to your minds with some degree of vividness perhaps more than it has had in the past that I am here today to talk of farm life, not as a proper subject for vocational training in the ordinary sense—I am not speaking about training for a vocation here, I am speaking of education in and by means of a vocation. I am not talking about agricultural education. I wish to speak to you of educational agriculture. This, I think, is the key note to the welfare of the nation in so far as the nation's welfare is connected with the proper maintenance and the proper development of farm life and the solution of the problems of keeping the people of the country upon the farms, in so far as it is desirable to keep them there, and of placing the country minded people of the cities back upon the farms in so far as it is desirable to place them there. The education which has been found in farm life in the past, however, in the main has been actual. That has been inherent. It is an education which could scarcely be evaded upon the farm. Perhaps that is the reason why it was so successful. We

seem to have been, over a good part of the past, very successful in evading the educational advantages of everything in our lives, in so far as they could be evaded. No effort on the part of our educators or our educational system could rob farm life of its educative effect, and yet I believe this to be true, that the present dominance of farm bred boys and girls in the industries and the development of our cities is almost at an end. I believe that the superior excellence of our city schools, that the development of our city educational systems, the development of vocational training in the cities, the lining up of our educational systems, in cities and towns, with life, I believe that that has already wiped out the advantage that the farm boys and the farm girls in the past have enjoyed and that has turned the tide of progress against them and the processes are already in operation unless something is done to stop it to turn our farm people in a hundred years, in one hundred and fifty years, into a peasantry as dumb and dead and brutal as the peasantry of any foreign land. And yet, let us hope for better things. We all know that the education that is inherent in farm life has never been even touched upon in the past in any large way. The child goes forth into the field, he goes forth—the little toddling child goes forth into the yard on the farm. He is educated in animal husbandry by dropping the crumbs for the chickens or the pigs to pick up. He goes into the field and he touches upon geography. He watches the clouds and he is instructed in meteorology. He finds out what is good to feed the pigs and he begins to study hygiene. He kills the chicken and dresses it for his mother and learns his lesson in anatomy and in the processes of the animal life before him he studies physiology. And yet, when he goes to school he finds a system of education as a rule which seems to have forgotten all about these things and by a violent wrenching takes these topics up and teaches them from books, forgetting that the child has been in contact with them in one way or another all his life. A greater educational absurdity never existed. If it were possible to imagine from the standpoint of a true and correct and logical system of rural education that such a system of education as ours could exist, I think the observer from the outside could say that while it might exist it never could exist except under the influence of insane people. And yet, in the main, it came in a very natural way. It came largely from such people as Horace Mann, who worshipped education merely as culture. It came through the feeling that girls must be reared to be the wives of presidents of the United States and boys to be their consorts. It grew out of the fact that people believed that anybody was good enough for manual labor and that every person should raise his boy and girl to be something better, by

which he meant something idler, than himself. Now, I need not take much time to make my point with this audience and I hope I shall not do so. I believe that the rural school needs only three things, except farm life, to make it the best educational plant in the world. Those three things are reading and writing and arithmetic. Give the farm boys and the farm girls reading, writing and arithmetic and a proper educational organization, and I would rather have them without any school houses. I would rather have them without any other equipment than to have the finest educational buildings in the world—and I am for good educational buildings—and have the course of study which in nine cases out of ten is now used to paralyze the aspirations and the outgrowth of the boy or girl upon the farm. That bad copy of a poor city school which rules from the Atlantic to the Pacific and from the Lakes to the Gulf; that little, contemptible, little red school, which we ought to change into a great big school house with something about it besides tradition and something more than buncomb back of its praise. (Applause).

It is true that after a child has learned to read he ought to use that for the purpose of educational advancement. He needs to learn geography, but farm life is all geography in its basis. And the proper way to teach geography to the farm boy and the farm girl is to do it through the brooks and the fields and the soil and the rocks around him, and the political lines which govern first his father's farm and second, the school district in which he lives and third, the counties and cities and leading out there from the state and United States. And if you mean commercial geography, I will take you to the class which is studying the economics of the crops of wheat. I will take the price of a bushel of wheat next year in a class of boys and girls in a Kansas country school. I will show you the teacher there giving them more geography because in order to know about wheat, the child must know about western Canada and Australia and Argentina and India and Texas and the wheat belt of the Ohio valley and the other western states. I will teach them current history because in order to know about the price of wheat, the boys and girls must know about the war. They must know about the stoppage of the Dardanelles. They must know what the Dardanelles means. They must know of the Dardanelles as the cross-way of the nations for four thousand years. They must know of the fact that crop after crop of wheat has been dammed up in Australia by this present war. They must know that Europe has been taking wheat from this country because it is the nearest pile of wheat to take from and that the wheat of Australia and Argentina and Russia has been damming up. They must consider the matter as to whether

this war is going to end in 1917, as to what wheat is going to be worth next year. You have geography, you have current history, you have ancient history, you have all history, in the price of wheat, the rearing of farm products, the type of machinery that is used. You have every element, almost every realm of human knowledge is laid under contribution by the things which are involved in the daily processes in the farm school. There is more bacteriology in the study of the soil and of the diseases of animals, things that the children ought to know in order to be good farmers, than there is in the average bacteriological laboratory of the ordinary technical school. There is more entomology in the life history of the insects which are at work upon the farms in Illinois today, or if not today, will be as soon as the weather breaks up in the spring, than most people ever learned. There is more nutritional knowledge in the figuring of balanced rations for the live stock upon the farm than the average person ever learned outside of a college course. And when it comes to the use of mathematics, the reckoning of the subtraction of fertility from the soil in a crop of corn, the determination as to whether or not the particular line of agriculture pursued maintains that fertility or not, the determination as to whether a particular type of farming is more or less profitable than another type of farming, the thousand and one economic problems which are as yet unsolved by the agricultural economics of our country, are yet things which must be attacked and may be attacked intelligently as related to particular farming operations in the counting room of the neighborhood, which the rural school should be. I need extend the application of these principles no further.

In a certain part of New York City is a tall building with a flat roof on top of which has been placed a foot or two of soil. There the children of the city are taken for the purpose of allowing them to grow flowers, to come in contact with plants. What would the City of New York give for half of the square mile of land which surrounds every school house in the Mississippi Valley, if it could be placed about the school houses of New York? Almost any price would be paid for the educational plant to be found upon one half square mile of land, and yet about every rural school house the plant stretches out indefinitely to the horizon. And yet this plant is very largely thrown away. The child is broken loose at the age of five years with a terrific wrench from the natural processes of education in which his mind has been engaged and thrown upon the tender mercies of an educational system as dry as dust and dead as hay. No wonder that the people of the United States are flocking to the cities. No wonder that there is nothing found in the country which is interesting and yet the really interesting things

of the world are in the country. Now I speak for farm life as education, I speak for the wonderful opportunities which the rural school presents for bringing forth a great people, a great and intelligent people, better in mathematics, better in geography, better in economics, better in history, better in an understanding of a dozen different branches of science than they can possibly be in city schools because they will handle the very things themselves. To be sure they may do that in city schools, but in the country they handle these things as being intimately related to their own lives and to the welfare of their own families. Now the educational principle does not stop with the farm. You know that as well as I do. The getting of education out of life is the problem of the future. I attack it from the standpoint of the rural school because there is where the problem is easiest. There is where the education in life lies upon the surface. There is where the child can't go through life and be robbed of an education except by some artificial means. In the country is the place where if farming is properly studied and made the basis of education, once more the great inventor, the great scientist, the great poet, the great artist, and the great statesman will come because they will be brought up in the system of education which will lead out from them the best that is in them.

HOW CAN VOCATIONAL EFFICIENCY BE OBTAINED IN THE PUBLIC SCHOOLS?

WM. C. BAGLEY

Director School of Education, University of Illinois

Your executive committee has asked me to answer the question, How can vocational efficiency be obtained in the public schools? I understood the chairman of the committee to suggest that I give my own views upon this matter. I am very glad to avail myself of this privilege, and to tell you what I think the public schools ought to do, and with competent leadership and a liberal financial support, easily could do to solve this important problem.

In the first place, to start at the beginning, the public school can, by improving the work which it is already doing, contribute much more than it has hitherto contributed to vocational efficiency. I refer to the basic work, the fundamental work, which constitutes the peculiar province of the elementary school. There are certain factors that are common to all vocations, and with these the common curriculum of the elementary school is primarily concerned. Whatever the public school does to improve its product in the fundamental arts of social life—in reading, writing, speaking, computation, in habits of courtesy and respect for the rights of others and respect for the collective will of society as crystallized in law—whatever it does here will contribute directly to vocational efficiency in a thousand different occupations. Whatever the school does to develop ideals of accuracy, efficiency, effortful achievement, persistence, and self-control will make for better workmanship in every art and craft and profession. If we analyze the complaints and criticisms that have been aimed at the public schools, we find that many of the weaknesses to which they point can be rectified only by the stiffening of our somewhat anaemic philosophy of general education—which in itself is only one expression of the sentimental philosophy of life which always tends to accompany an abounding material prosperity. We cannot expect large returns from an investment in specific or vocational education if the agencies of vocational education must expend much of their time and energy in correcting defects and uprooting habits and reshaping twisted ideals that have resulted from flabby and dilletante general education. The fault here is not so much in the subject-matter of the school, as in the spirit of the times. The subject-matter has recently undergone and is

now undergoing extensive revisions—and they are important—but basic to the curriculum is the general attitude toward aggressive and persistent effort—the willingness to pay the price for mental growth and mental mastery.

In the second place, and again upon the lower levels of education, the public schools can and should do much to insure upon the part of our boys and girls the intelligent selection of an occupation. Acquaintanceship with the necessities and requirements, the rewards and limitations of the basic human occupations should be begun before the pupil has finished the elementary school.

I am a little doubtful as to the definition of “prevocational work,” but as I interpret the term it means this, primarily. Its chief aim should be that of acquainting the pupil with the larger types of bread-winning occupations. Insofar as suitable equipment may be provided, this acquaintanceship should be gained through actual adjustment to actual situations. The boy should learn how it feels to do different kinds of work—the difficulties involved, the materials needed and how they are obtained, the tools required, and the processes that make up these fundamental arts and skills. This would be in the nature of vocational guidance, for here native abilities might be discovered or native interests laid bare. It would also be in the nature of a liberalizing education, for it would furnish a basis for understanding how the work of the world is done, and for appreciating its difficulties and evaluating its service. Indeed, if proper educational conditions could be insured, it would be of great educational advantage to have the different industries studied at first hand by groups of pupils, just as it is excellent educative experience for every boy to have a summer of farm work and a summer of office work and a summer in a factory and a summer on the railroad and a summer in a printing office.

But the amount of differentiation in this prevocational work will of necessity be small. This is not specialized vocational education in any sense of the term and ought not to be confused with vocational education as such. I personally believe that it should be required of all pupils whatever their occupational plans and ambitions may be.

Of course any extensive use of the industries of a community as a laboratory for work of this type is far in the future and may never be realized. At a very early date, however, it should be possible to realize in the elementary school some of the rich premises that have been made by the advocates of vocational guidance. Here is a movement, rich in possibilities—a movement which should do a great deal to correct many of the evils of maladjustment now unjustly laid at the door of the curriculum. Particularly important is that phase of vocational

guidance known as vocational enlightenment. There is every reason for urging the careful investigation of occupations by competent and unprejudiced students, and the development of materials and methods of instruction which will give to our boys and girls the kind of knowledge that will enable them to make an intelligent choice among the thousands of bread-winning callings.

As investigation continues, it may also be possible to determine with reasonable accuracy the innate traits or handicaps that would make for or against success in various types of work. This, however, is not a problem for present solution. Only by the amassing of data such as are being collected in Cincinnati and perhaps in some other cities can the basis of a real science of vocational discovery be laid.

From the age of fourteen on, the opportunity should be open for a certain measure of real vocational specialization; but every liberalized curriculum should still retain a generous requirement of liberalizing and non-vocational work. The proportion of time that the strictly vocational work may properly consume during these early adolescent years is still a matter of dispute. Temporary and individual adjustments should be looked upon as legitimate so long as they are recognized as specific cases, and do not commit the school to the unqualified indorsement of early specialization as an educational policy—a policy which is perilous to true democracy. Thus the boys and girls who cannot be held in school by anything other than highly specialized work should be permitted to engage in such work in a proportion even as high as three-fourths of their entire program. But these will be the exceptions, and the policy of the school should be, I am convinced, to discourage programs so narrowly specific between the ages of fourteen and sixteen. From sixteen to eighteen, a larger proportion of the work may well be specific in aim for those pupils who will finish their schooling with the close of the high school course; but even here a margin should be left for work that is distinctly liberalizing in its purpose, and again the policy of the school should be to encourage the broader and more comprehensive programs.

But there is no good reason, in my opinion, why such vocational work as is undertaken beginning at the age of fourteen should not be fairly thoroughly vocational in aim and methods. In other words, so long as the liberalizing elements are provided in the program, the vocational courses may well aim to develop specialized skill of a rather pronounced type. Indeed, I am convinced that a specific training which does not emphasize pretty strongly the side of skill will be disappointing both to the learner and to those who later employ him in productive work.

We come here to a phase of the vocational education problem which is full of thorns. Dr. Dewey, for example, speaks strongly against the type of vocational education which has its purpose pointed toward a high grade of skill rather than the development of what he terms "initiative and personal resources of intelligence." That a program of vocational education should aim for initiative and intelligence and adaptability as well as for skill, we should all agree. But I do not believe that the two aims are mutually exclusive of one another. It is the same question that has puzzled us before in our educational thinking—the apparent antithesis of habit and initiative or judgment; and the only rational answer seems to be this: that a high measure of skill is not inconsistent with a high measure of initiative. The German educational system has often been criticized by Americans for its emphasis of the habit-side and its neglect of the side of initiative. I recall hearing some ten years ago a ringing denunciation of the German ideal of thoroughness on the ground that it killed initiative and originality. It is unsafe at the present writing to draw conclusions from recent events; but whatever may be our opinion as to the moral justification of the Germans in their war against the world, the person who denies their originality and their initiative and their ability to meet new situations and to adapt their resources to immediate problems can hardly be familiar even with those military and naval achievements that have come to us through the fine-meshed sieve of the censors.

It is at this point that I would personally part company with some of those who, like myself, have protested against the dual system and other unfortunate features of the radical vocationalists. I would go so far as to say that, whenever we start to vocationalize, we should vocationalize, we should not play at it. Let us not be afraid of developing skills to a high point of efficiency. Let us rather be certain that the skills that we do develop are basic skills that have wide range of application and a fair promise of longevity, and certainly let us see to it, first that a study of principals parallels the mastery of skill, and secondly that no youth is required or permitted to spend all of his school time in this specific type of training. The time that he does spend, let him spend in getting a mastery of processes that will be of real service to him, rather than a dabbling in this or that with nothing carried far enough to make him really proficient.

There is certainly large need here for a much more penetrating study of the skill elements underlying the various occupations than has yet been attempted, and for organizing these elements into coherent and meaningful courses of study, the progressive mastery of which will spell an effective mastery of some basic industrial process. There

has been something approaching this in the development of manual training, but the manual training work has been severely criticized because it has subordinated specific skill to general culture—usually through a naive rehabilitation of the doctrine of formal discipline in its most untenable form. In the progressive mastery of a fundamental art there should be much formal discipline in the true sense of the term. There should be a gradual abstraction of the factors that underlie the acquisition of skill. The efficient teacher of shorthand or of sewing or of cabinet-making or of jewelry construction or of machine shop practice should be able to make his discipline carry much further than the confines of the classroom or shop or the details of his specific art. It should be an object lesson typifying the acquisition of every complicated art—and it can be made this only if an art, or a basic phase of an art, is really mastered.

This point of view is, I believe, of large importance in the construction of vocational curricula. The public school must not be led into ineffective vocational work by the cry against mechanization and the fear of producing an automatism. The kind of mechanism and automatism that it needs to watch out for is the kind that is represented by the so-called automatic trades which can be mastered in a few days and which forever after keep the worker on the lowest plane of mechanical routine. But skill and efficiency in the complicated arts do not come under this category. It would be hard to imagine a man who had too much skill in these activities.

But there will be room, of course, for the kind of acquaintanceship with an art that comes merely from working through some of its adjustments without the intent to acquire proficiency. The prevocational work that I referred to, and which I believe might be profitably introduced into the elementary schools, is distinctly of this type. On the higher levels, too, there is a place for some laboratory work in the shops that will not lead to a high measure of skill. A boy who is preparing for machine shop practice will need some acquaintance with woodworking and with foundry practice in order to have a basis for comprehending the work of pattern-making and the casting of the parts that he, as an expert machinist, is to finish and assemble. This acquaintanceship certainly does not involve the expert mastery of woodworking or of foundry work. But as an embryo machinist, his training in his chosen field should be specific, detailed, and aimed from the outset at accuracy. The boy looking forward to the printer's art will need some acquaintanceship with machine work, but this again is preparatory to his really technical training. Every boy ought to have some experience in firing a boiler and running an engine; but, if he is

to become an expert fireman or an expert engineer, his training must be much more protracted, much more strenuous, and much more exacting.

It would seem necessary, then, to distinguish between vocational courses that are preparatory value in giving the individual an interpretive basis for understanding certain relationships of the art that he seeks to master, and the courses that are specifically designed to impart technical skill and insight in that art.

My contention is that anything approaching an effective discipline must be looked for in this rigid, accurate, exact mastery rather than in the informal acquaintanceship represented by the former activities. There is a very good reason for protesting against mere mechanism and mere automatism; but there is also reason for recognizing that a high measure of technical skill is not inconsistent with a high measure of intelligent adaptability. Unless we recognize this, our vocational work is likely to be just as disappointing in its failure directly to prepare for the bread-winning activities as was the older traditional curriculum or the modifications that have gone under the name of manual training, and just as unsatisfactory as have been all attempts to minimize accuracy and rapidity in the common arts of the elementary program on the ground that such training crushes initiative.

In short, the problem is to recognize distinctly the type of outcome that is chiefly desired. General ideals of accuracy and clear thinking cannot come out of specific discipline that nowhere reflect these virtues.

As a part of any comprehensive scheme for solving the problem of vocational education in the public schools we must have a permanent bureau that will study the needs of the various vocations for trained recruits. The Cleveland Survey has shown the absurdity of concluding that we can solve the educational problem merely by adding wood-working and metal-working shops to our school equipment. It has shown that in the city of Cleveland today only one adult man in every ten is engaged in occupations for which the specific work of these shops will be a preparation. A thoroughgoing system of vocational education, as Ayres suggests, must study this problem on an actuarial basis and work out tables of occupational probabilities that will form a basis for vocational guidance and insure that each of the basic occupations demanding trained skill and insight will be neither overcrowded with, nor lacking in, an adequate supply of workers.

And this leads to the most perplexing problem of vocational education and perhaps also the most perplexing problem of modern industrial life.

Let us imagine ourselves projected fifty years into the future when at least twelve years of schooling have become the universal requirement, and secondary schools have developed specialized vocational courses giving to the vast majority of our boys and girls a practical efficient mastery of some bread-winning art. Each person, let us assume is highly skilled. At the same time, machinery has developed in so efficient a form that much of the world's work is done by automatic machines that require for their operation but a minimum of trained skill. Here, it would seem, we have two principles working pretty effectively against one another. We propose to provide thorough education for intelligent and highly skilled efficiency in a social order that seems to be developing in quite the opposite direction, and to require in ever increasing degree the machine operative who can learn his process in a few days. Under a condition of this sort, a caste system is bound to develop (a situation which until recently has not been serious because of a large annual supply of cheap labor from other countries) unless a new attitude toward the mechanical trades is brought about.

There is only one way to solve the problem—and this way has been pointed out by those who have clearly grasped the difficulty. It involves something more than a reconstruction of our educational system: it demands a reconstruction of the social system. Democracy can never come truly into its own until every person does his share of the world's drudgery. Drudgery there will always be and the development of automatic machines is going to increase rather than diminish it, for drudgery is work that can be done with a minimum of intelligent direction. To set aside a certain class or group on the theory that they may best be utilized for this work, sparing the others for constructive effort, is the essence of social stratification and the antithesis of democracy. It may be that certain people are better endowed by nature for the constructive work, and that social progress in the abstract is promoted more effectively when these individuals are permitted to do this work unhampered by lower forms of activity. It is true also that some individuals—a goodly number in fact—are more than content with the routine of drudgery, and are willing to let others think for them. Certainly one can lead a comfortable vegetative sort of life without an overexertion of one's mental faculties, and certainly thought-work is the most fatiguing and at some points the most agonizing of all types of effort. But the true democracy will, I believe, insist upon a division of labor in each individual. The routine work will be done by all, and for relatively short periods; the constructive work will be attempted by all. It sounds fantastic and impracticable, but it seems to be the only type of program that will adequately meet the needs of a situation that is rapidly developing.

A DISCUSSION

WM. BACHRACH

Supervisor of Commerical Work in the High Schools of Chicago

Ladies and Gentlemen:

The program this afternoon would have been complete enough for an entire convention, it seems to me. It took up the matter of the contents and teaching of commerical education; the training of teachers, and farm life and how we can weld all of these phases into the work of our schols. Those of us who are trying to work out the problems, meet these difficulties every day. The great difficulty right now is that where we have these branches in our schools we have difficulty in getting teachers who can teach them properly. We have set certain requirements—educational, professional—for these teachers, but we have great difficulty in obtaining them. Very few of our teachers whom we are compelled to take can see the subject which they are to teach from the broad standpoint that was given us here today. It seems to me that the one thing that we ought to set about doing, if we do nothing else during the coming years, is to work out some plan for preparing the teachers who come to us without any teaching preparation whatsoever. Every semester, in our Chicago schools at least—and I suppose the same is true elsewhere—we put to work people who have had practical experience and a minimum educational requirement we put them in classrooms with pupils ready and eager to learn, and these people have not had a day's experience in teaching. It is a very dangerous problem. It is a thing we wouldn't dare do if we didn't have to do it, if there was any other way out of it, and it seems to me that we have gone far enough in this work to seriously take up that particular phase.

One other thing that I think we ought to encourage that was brought out this afternoon, is to place more real responsibility with the pupils. I know a great many teachers who are firm believers in home work. They believe that home work gives some responsibility, but in most cases the home work given is an absolute fraud. The boy and girl know it, and either do not do it or they do it in a very poor way. The solution in the city, it seems to me, is to get the boy or girl some real actual work—some work that he knows is real because he will be paid money for it. It is not so difficult to get that if we try and think.

If we do try and get that, we can discard our old-fashioned idea of home work.

It is a rather difficult matter for me frequently, to get the principals to release boys and girls from school for half a day occasionally to do practical work, because it interferes with the regular school work. I believe that we will have to look at these things from a broader point of view. It is impossible to fool the youngster. We have done it for a number of years; we are doing it more or less now, and I believe that we ought to give him the real article, and give him some real responsibility.

The one difficulty that we are having nowadays, and that perhaps was mentioned this afternoon, is that as soon as we reach a stage in our vocational teaching where we get a certain amount of skill from the pupil, we begin to fear that we are making them one-sided, and then we think we will take out from the course of study some of this skill-producing matter and put in some more of the so-called cultural matter and we defeat the end that we work hard to achieve.

Just the other day a teacher came to me, much distressed—a teacher in the commercial department. She said the pupils are not allowed to choose enough in the courses—are not given enough opportunities. She said that the pupil in the two-year commercial course should be allowed to take one year of a foreign language. I argued a long time with her, tried to show her that that had been the bane of our past education, the giving of a smattering of a great many things, and she said she had taught just now in her third year. I could not begin to convince her. She knows more about education now than she ever will know again, I am sure, and she had started in as an inexperienced teacher three years ago.

I believe that in the two-year course, and that is the course that most of our vocational schools have now, we can bring forth a great deal of skill, but it depends upon the teacher who is teaching shorthand or shopwork to work into that teaching a broadening view, and it can be done. The shorthand teacher need not dictate letters which are deadening and trite. She can dictate material from literature that is really worth while. If she does this the pupil will get it in a better manner than he would in the literature class, I believe. The shorthand teacher in dictating, if she has anything of elocution, will give the pupil a real notion of that piece of literature. He will then write it. It will then be worked into a system that way. He will then read it back, and three times then he has gone over that piece of literature, so that there need be little fear of this narrowing influence that our so-called academic friends feel exists in our vocational training.



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